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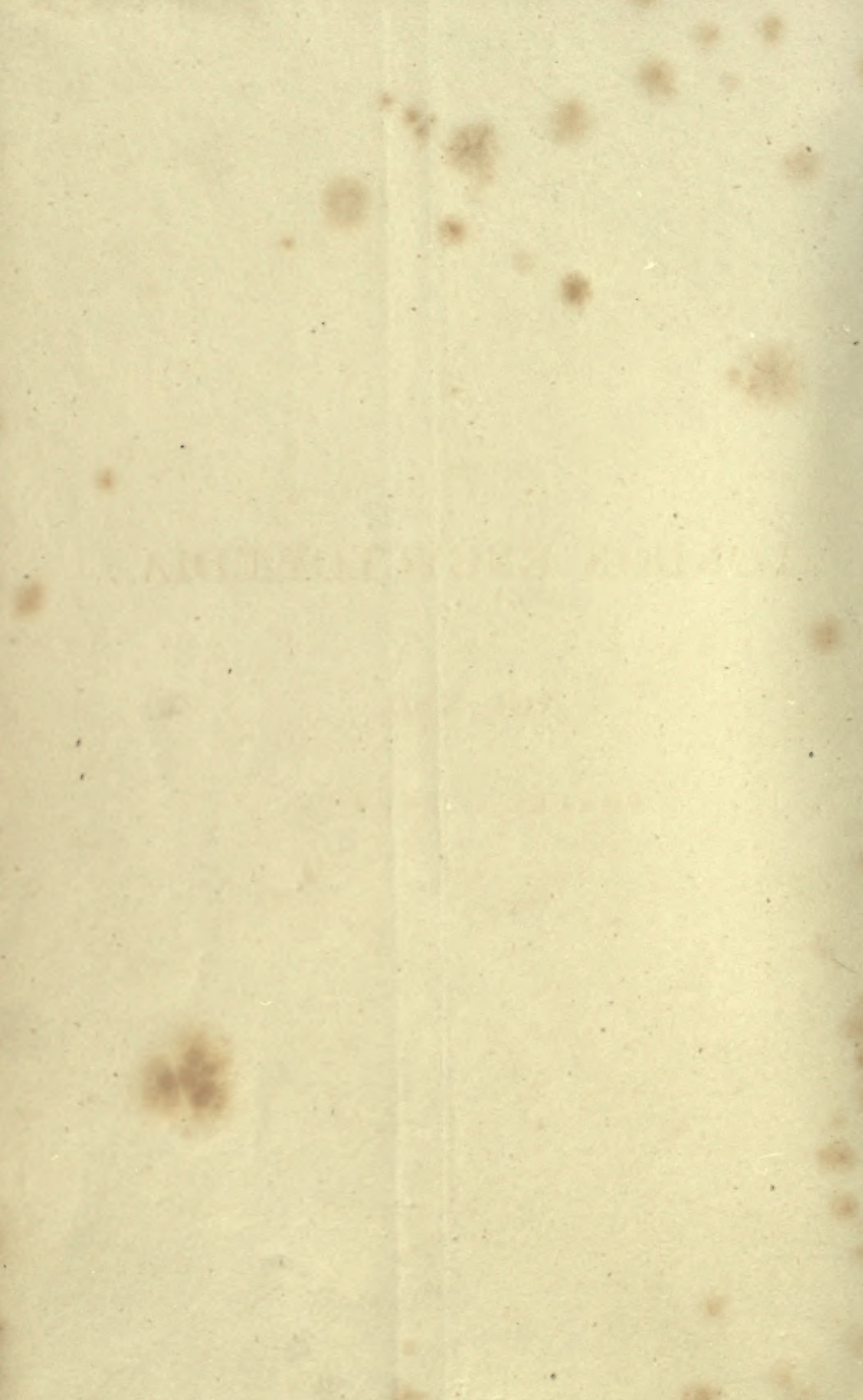


FOR

LONDON ENCYCLOPÆDIA.

VOL. XXII.

THALES & ZEPHEUS.





THE  
LONDON ENCYCLOPÆDIA.

VOL. XXII.

THALES TO ZYPÆUS.

LONDON ENCYCLOPEDIA.

J. Haddon, Printer, Castle Street, London.



THE  
LONDON ENCYCLOPÆDIA,

OR

UNIVERSAL DICTIONARY

OF

SCIENCE, ART, LITERATURE, AND PRACTICAL MECHANICS,

COMPRISING A

POPULAR VIEW OF THE PRESENT STATE OF KNOWLEDGE.

ILLUSTRATED BY

NUMEROUS ENGRAVINGS, A GENERAL ATLAS,  
AND APPROPRIATE DIAGRAMS.

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*Sic oportet ad librum, presertim miscellanæ generis, legendum accedere lectorem, ut solet ad convivium conviva civilis. Convivator annititur omnibus satisfacere; et tamen si quid apponitur, quod hujus aut illius palato non respondeat, et hic et ille urbane dissimulant, et alia fercula probant, ne quid contristent convivorem.*

*Erasmus.*

A reader should sit down to a book, especially of the miscellaneous kind, as a well-behaved visitor does to a banquet. The master of the feast exerts himself to satisfy his guests; but if, after all his care and pains, something should appear on the table that does not suit this or that person's taste, they politely pass it over without notice, and commend other dishes, that they may not distress a kind host.

*Translation.*

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BY THE ORIGINAL EDITOR OF THE ENCYCLOPÆDIA METROPOLITANA,

ASSISTED BY EMINENT PROFESSIONAL AND OTHER GENTLEMEN.

IN TWENTY-TWO VOLUMES.

VOL. XXII.

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# THE LONDON ENCYCLOPÆDIA.

**THALES**, a celebrated Greek philosopher, and the first of the seven wise men of Greece, was born at Miletus about 640 B. C. Thales acquired great reputation by his wisdom and learning; he was the first among the Greeks who foretold eclipses of the sun, and made extraordinary discoveries in astronomy. Thales was the author of the Ionian sect of philosophers, who were thus called, from his being born at Miletus, a city of Ionia. He maintained that water was the principle of which all the bodies in the universe are composed; that the world was the work of God; and that God sees the most secret thoughts in the heart of man. Thales went to see Cræsus, who was marching with a powerful army into Cappadocia, and enabled him to pass the Halys without making a bridge. He died soon after, at about ninety years of age. He composed several treatises in verse, on meteors, the equinoxes, &c., but they are all lost.

**THALES**, another celebrated Greek philosopher, a native of Gorthynia.

**THALESTRIS**, a queen of the Amazons, who came, attended by 300 women, fifteen days' journey to meet Alexander, during his expedition into Asia, that she might raise up a race of heroes by so great a man.—Q. Curt. vi. c. 5. Strabo, 11. Justin, c. 4.

**THALIA**, in pagan mythology, one of the nine muses. She presided over Comedy; and is represented crowned with a garland of ivy, holding a mask in her hand, and wearing buskins on her feet. See **MUSES**.

**THALIA**, in botany, a genus of plants belonging to the class monandria, and order of monogynia; and in the natural system ranging under the eighth order, scitamineæ. The corolla is pentapetalous and undulated; and the drupe has a bilocular kernel. There is only one species, viz. *T. geniculata*.

**THALICTRUM**, meadow rue, in botany, a genus of plants belonging to the class of polyanthia, and order of polygynia; and in the natural system ranging under the twenty-sixth order, multisiliquæ. There is no calyx; the petals are four or five in number, and the seeds are naked and without a tail. There are fifteen species, three of which are indigenous, viz.

1. *T. alpinum*, or alpine meadow rue, has a very simple stalk, and almost naked; and a racemous simple and terminal. It is a pretty little plant, about a finger's length in height; the leaves all rise from the root, the stalks being naked and branched; the flowers nod, and have four petals, twelve stamina, and eight pistils. It is frequent on the sides of rivulets, in the highland mountains, and other places.

2. *T. flavum*, the common meadow rue, has a leafy furrowed stalk, and a manifold erect panicle. It has commonly twenty-four stamina, and from ten to sixteen pistils. The root and leaves of this plant dye a yellow color, and cattle are fond of it. It grows on the banks of some rivers.

3. *T. minus*, or small meadow rue, has sex-partite leaves, and bending flowers. The stalk is striated, and about a foot high; the leaves are lax and divaricated, having rigid foot-stalks; they are smooth and glaucous, and their lobes generally trifid; the panicle is branched and open, and the flowers nod; the petals are pale green, tinged with red; the stamina are from fifteen to twenty; the seeds deeply striated, and from two to seven in number. This plant is frequent in sandy soils and mountainous pastures.

**THALLAND**, a province of Sweden, called also **DALEA** and **DALIA**, which see.

**THAMAS KOU LI KHAN**, or Nadir Shah, the murderer and successor of the preceding monarch, a bloody monster. He began his bloody career with the murder of his own uncle, whose fort and territories he seized. See **DELHI**, **INDIA**, and **PERSIA**.

**THAME**, a market-town in the hundred of Thame, Oxon, pleasantly seated on an eminence on the banks of the Thame, thirteen miles east from Oxford, and forty-five north-west of London. The parish contains about 4600 acres of land, and is divided into six hamlets or liberties. The town consists of one long and spacious street, in the centre of which is a capacious marketplace, and the church is a good Gothic structure. It has a town-hall, a free-school, an alms-house, and several other charitable institutions. In 1138 Alexander, bishop of Lincoln, erected a monastery here, which, at the general dissolution, was given to the duke of Somerset. The river is navigable for barges to the Thames at Dorchester. The market on Tuesday is well supplied with corn and cattle. Fairs Easter Tuesday, and Old Michaelmas-day. It is a vicarage, with Tetsworth, Towersey, and Syddenham churches annexed. Population 2880.

**THAME**, a river which rises on the eastern side of Bucks, near Ivinghoe, crosses that county, and falls into the Thames at Dorchester, in Oxfordshire.

**THAMES**, the most remarkable river in England, particularly as connected with the commerce of the metropolis, and navigable from its mouth to Letchlade, in Gloucestershire, a distance of 230 miles. The tide flows as high as Richmond in Surrey, more than seventy miles from the ocean. From the depth of water at London, which is capable of navigating the

largest ships, the metropolis is one of the greatest commercial ports in the universe. The *real* water is exceedingly wholesome; and abounds with a variety of fish. Its banks, westward from the metropolis, are ornamented with the most beautiful villas and pleasure grounds, and in its course it is joined by numerous rivers and streams, particularly the Kennet, Loddon, Coln, Charwell, Tame, Isis, Wey, Mole, Wandle, Lea, Roding, Darent, Medway, &c.; it is also joined by several navigable canals, viz. the Grand Junction canal, at Brentford; the Oxford and Warwick canal, at Oxford; the Thames and Severn Canal at Letchdale; and the city Canal at Limehouse forming a connected chain of inland navigation throughout the whole of the kingdom.

THAMES, a river of Connecticut, which is formed by the Shetucket and Yantic, at Norwich, and flows south into Long Island Sound, two miles below New London. It is navigable through its whole course.

THAN, *adv.* Sax. *þanne*. A particle placed in comparison after the comparative adjective or adverb, noting a less degree of the quality compared in the word that follows *than*: as, monarchy is better *than* anarchy.

Were we not better to fall once with virtue,  
*Than* draw a wretched and dishonoured breath?

*Ben Jonson.*

I never met with a more unhappy conjuncture of affairs, *than* in the business of that unfortunate earl.

*King Charles.*

More true delight in that small ground,  
*Than* in possessing all the earth was found.

*Daniel.*

I love you for nothing more *than* for the just esteem you have for all the sons of Adam.

*Swift.*

THANE, *n.s.* Sax. *þegn*. An old title of honor, perhaps equivalent to baron.

By Sinel's death I know I'm *thane* of Glamis;  
But how of Cawdor? the *thane* of Cawdor lives.

*Shakspeare.*

THANE (Lat. *thánus*) was a title formerly given to the nobility in Britain. It signifies a minister or honorable retainer, from the verb *thenian*, to minister. There were several degrees of nobility among the Anglo-Saxons; but those most commonly mentioned are the king's *thanes* and the alderman's *thanes*. The king's *thanes* seem to have been of three different degrees, according to their different degrees of wealth or favor at court. The alderman's *thanes* seem to have been of the lowest degree of nobility, and next to them those who were promoted to that dignity from their advancement in the church, from their valor, success in agriculture or commerce: for if a ceorl or farmer applied to learning and attained to priest's orders; if he acquitted himself so well as to obtain from a nobleman five hythes of land, or a gilt sword, helmet, and breast-plate, the reward of his valor; or if by his industry he had acquired the property of five hythes of land; or if he applied to trade, and made three voyages beyond sea in a ship of his own, and a cargo belonging to himself—he was denominated a *thane*. The *thanes* were obliged to attend the king with their followers in military expeditions, to assist in building and defending the royal castles, and in keeping the

bridges and highways in proper repair. This title of *thane* was abolished in England at the conquest, upon the introduction of the feudal system by William I. The titles of earl and baron were about the same period introduced into Scotland by Malcolm Canmore, and the title of *thane* fell into disuse.

THANET, ISLE OF, a celebrated part of the county of Kent, lying on the south shore of the Thames, ten miles in length, from the North-Foreland to Saar Bridge, and eight miles across from Westgate to Sandwich Ferry. It is separated from the rest of the county by a narrow channel of the Stour, and contains ten parishes, to which there are now only seven churches. On this Isle are the popular bathing places of Margate, Ramsgate, and Broadstairs. The soil is particularly fertile in grain and all the ordinary crops; and in the south and west parts are excellent pasture and marsh-lands, on which large numbers of sheep and cattle are fattened. The climate is remarkably dry and salubrious.

|                                 |   |
|---------------------------------|---|
| THANK, <i>v. a. &amp; n. s.</i> | } Sax. <i>þancian</i> ; Belg. <i>danck</i> ; Goth. <i>thank</i> .<br>To return acknowledgments: the acknowledgment returned (often used in the plural): thankful is grateful; ready to acknowledge a favor: |
| THANKFUL, <i>adj.</i>           |   |
| THANKFULLY, <i>adv.</i>         |   |
| THANKFULNESS, <i>n. s.</i>      |   |
| THANKLESS, <i>adj.</i>          |   |
| THANKLESSNESS, <i>n. s.</i>     |   |
| THANKOFFERING,                  |   |
| THANKSGIVING,                   |   |
| THANKWORTHY, <i>adj.</i>        |   |

the adverb and noun substantive corresponding: thankless, ungrateful; not likely or deserving to gain thanks: the noun substantive that follows corresponding: the compounds are of obvious meaning.

Be *thankful* unto him, and bless his name.

*Psalms c. 4.*

Of old there were songs of praise and *thanksgiving* unto God.

*Nehemiah vii. 46.*

He took bread, and gave *thanks* to God in presence of them all.

*Acts xxvii. 35.*

We *thank* God always for you.

*2 Thess. i. 3.*

This is *thankworthy*, if a man endure grief.

*1 Pet. ii. 19.*

A *thankful* remembrance of his death.

*Common Prayer.*

He scarcely would give me *thanks* for what I had done, for fear that *thankfulness* might have an introduction of reward.

*Sidney.*

Lest so great good as he for her had wrought,  
Should die unknown, and buried be in *thankless* thought.

*Spenser.*

These sacred hymns Christianity hath peculiar to itself, the other being songs too of praise and *thanksgiving*, wherewith as we serve God, so the Jews likewise.

*Hooker.*

That she may feel

How sharper than a serpent's tooth it is,  
To have a *thankless* child.

*Shakspeare. King Lear.*

Will you give me this maid your daughter?

—As freely, son, as God did give her me.

—Sweet prince, you learn me noble *thankfulness*.

*Shakspeare.*

The forlorn soldier, that so nobly fought,  
He would have well become this place, and graced  
The *thankings* of a king.

*Id. Cymbeline.*

For your stubborn answer

The king shall know it, and, no doubt, *thank* you.

*Shakspeare.*

The poorest service is repaid with *thanks*.

*Id.*



' Here is better than the open air; take it *thankfully*. *Id.*

Some embrace suits which never mean to deal effectually in them; but they will win a *thank*, or take a reward. *Bacon.*

In favour, to use men with much difference is good; for it maketh the persons preferred more *thankful*, and the rest more officious. *Id. Essays.*

If love be compelled, and cannot chuse, How can it be grateful or *thankworthy* prove? *Davies.*

Not t' have written then, seems little less Than worst of civil vices, *thanklessness*. *Doone.*

The contracting and extending the lines and sense of others, if the first authors might speak for themselves, would appear a *thankless* office. *Wotton.*

Wage still their wars, And bring home on thy breast more *thankless* scars. *Crashaw.*

The celebration of these holy mysteries being ended, retire with all *thankfulness* of heart for having been admitted to that heavenly feast. *Taylor.*

For this to the infinitely good we owe Immortal *thanks*. *Milton.*

Ill fare our ancestor impure! For this we may *thank* Adam. *Id.*

We should acknowledge our obligations to God for the many favours we receive, by continual praises and *thanksgiving*. *Tillotson.*

Out of gold, how to draw as many distinct substances as I can separate from vitriol, I shall very *thankfully* learn. *Boyle.*

Live, thou great encourager of arts; Live ever in our *thankful* hearts. *Dryden.*

Weigh the danger with the doubtful bliss, And *thank* yourself, if aught should fall amiss. *Id.*

If you have lived, take *thankfully* the past; Make, as you can, the sweet remembrance last. *Id.*

*Thankfulness* and submission make us happy. *L'Esrange.*

The common practice of all Christian churches and states, in appointing and keeping days of public *thanksgiving* and humiliation, is argument sufficient to prove, that in the common sense of Christians it is not forbidden in scripture. *Nelson.*

One grateful woman to thy fame supplied What a whole *thankless* land to his denied. *Pope.*

I hat Portugal hath yet no more than a suspension of arms, they may *thank* themselves, because they came so late into the treaty; and, that they came so late, they may *thank* the Whigs, whose false representations they believed. *Swift.*

A thousand *thankofferings* are due to that providence which has delivered our nation from these absurd iniquities. *Watts.*

THAPSIA, the deadly carrot, in botany, a genus of plants belonging to the class of pentandria, and order of digynia; and in the natural system ranging under the forty-fifth order, umbellate. The fruit is oblong, and girt with a membrane. There are five species:—T. asclepium, foetida, garganica, trifoliata, and villosa. The roots of the foetida were formerly ordered in medicine, but are now entirely disused; a small dose operating with extreme violence both upwards and downwards.

THAPSUS, a town of Africa Proper, where Scipio and Juba were defeated by Julius Cæsar Liv. 29, c. 30.

THARGELIA, in Grecian antiquity, festivals in honor of Apollo and Diana.

THAROPS, the father of Oeagrus and grandfather of Orpheus. Bacchus made him king of Thrace. Diod. 4.

THARUS, in ornithology, the Chilese eagle. See FALCO.

THASOS, or THASUS, an island in the Ægean Sea, anciently called Æthria, famous for its gold mines; with a town so named.

THASUS, a brother of Cadmus, whom he accompanied in search of Europa. Apollod. 3.

THAT, *pron. & conj.* Saxon *ðæt*; Gothic *thata*; Dut. *dat.* Not this, but the other; which; who; what; such as; the thing: as a conjunction, because; noting consequence or final end.

Yet, for all *that*, when they be in the land of their enemies I will not cast them away. *Leviticus xxvi. 44.*

The Nazarite hath vowed, besides *that* his hand shall get. *Numbers vi. 21.*

They said, What is *that* to us? see thou to *that*. *Matthew.*

Ye defraud, and *that* your brethren. 1 Cor. iv. 8.

The sinner makes an aberration from the scope or mark *that* is set before him. *Perkins.*

Things are preached not in *that* they are taught, but in *that* they are published. *Hooker.*

Octavia, not only *that*, *That* were excusable, *that* and thousands more. Of semblable import, but he hath waged New wars against Pompey. *Shakespeare.*

I'll know your business, *that* I will. *Id. Henry IV.*

Sir, I think the meat wants *that* I have, —Basting. *Id. Comedy of Errors.*

We answered, *that* we held it so agreeable, as we both forgot dangers past and fears to come, *that* we thought an hour spent with him was worth years of our former life. *Bacon's New Atlantis.*

In the midst of this darkness they saw so much light, as to believe *that* when they died they went immediately to the stars. *Heylyn.*

This is *that* Jonathan, the joy and grace, *That* Jonathan, in whom does mixt remain All *that* fond mother's wish. *Cowley.*

They weep, as if they meant *That* way at least proud Nabas to prevent. *Id.*

In this scale gold, in t' other fame does lie, The weight of *that* mounts this so high. *Id.*

He made *that* art which was a rage. *Id.*

Forgive me *that* I thus your patience wrong. *Id.*

I have shewed before, *that* a mere possibility to the contrary can by no means hinder a thing from being highly credible. *Wilkins.*

It is not *that* I love you less Than when before your feet I lay; But to prevent the sad increase Of hopeless love, I keep away. *Waller.*

By religion is meant a living up to those principles, *that* is, to act conformably to our best reason, and to live as becomes those who believe a God and a future state. *Tillotson.*

This runick subject will occur upon *that* of poetry. *Temple.*

This is not fair; nor profitable *that*; Nor t' other question proper for debate. *Dryden's Persius.*

The custom and familiarity of these tongues do sometimes so far influence the expressions in these epistles, *that* one may observe the force of the Hebrew conjugations. *Locke.*

We must direct our prayers to right ends; and *that* either in respect of the prayer itself, or the things we pray for. *Duty of Man.*

Saints *that* taught and led the way to heaven. *Tickle.*

What is inviting in this sort of poetry proceeds not so much from the idea of a country life itself, as from *that* of its tranquillity. *Pope.*

THATCH, *n. s. & v. n.* } Sax. *ðace*, straw,  
 THATCH'ER, *n. s.* } (Skinner), from *ðac*,  
 a roof; in Isl. *thak*.—Lye. Straw laid upon the  
 top of a house to keep out the weather: to  
 cover as with straw: one whose trade is thus to  
 cover houses.

Make false hair, and thatch  
 Your poor thin roofs with burthens of the dead.

Moss groweth chiefly upon ridges of houses tiled  
 or thatched.

\* Then Rome was poor, and there you might be-  
 hold

The palace thatched with straw.  
 Ash is universal timber; it serves the soldier,  
 seaman, carpenter, thatcher, and husbandman.

Hard by a sty, beneath a roof of thatch,  
 Dwelt Obloquy, who in her early days  
 Baskets of fish at Billingsgate did watch,  
 Cod, whiting, oyster, mackerel, sprat, or plaice.

Sonnets or elegies to Chloris  
 Might raise a house above two stories:

A lyric ode would slate, a catch  
 Would tile, an epigram would thatch.

You merit new employments daily;  
 Our thatcher, ditcher, gardener, bailly.

A plough-boy, who has never seen any thing but  
 thatched houses, naturally imagines that thatch be-  
 longs to the very nature of a house.

Then came rosy Health from her cottage of thatch,  
 Where never physician had lifted the latch.

THAUMANTIAS, in mythology, a name  
 of Iris, the goddess of the rain-bow; from her  
 father Thaumias.

THAUMAS, a son of Oceanus and Terra, who  
 married Electra, by whom he had Iris, the Har-  
 pies, &c.

THAUMASIUS, a mountain of Arcadia, the  
 birth-place of Jupiter according to the poets.

THAW, *v. n., v. a., & n. s.* Sax. *ðapan*; Teutonic  
*thau*. To grow liquid after congelation; melt;  
 remit frost: to melt what was congealed: the  
 act of doing so: liquefaction of something that  
 has been congealed; the warmth that liquefies.

My love is thawed,  
 Which, like a waxen image 'gainst a fire,  
 Bears no impression of the thing it was.

A man of my kidney, that am as subject to heat  
 as butter; a man of continual dissolution and thaw.

I was the prince's jester, and duller than a great  
 thaw.

When thy melted maid  
 His letter at thy pillow hath laid:  
 If thou begin'st to thaw for this,  
 May my name step in.

That cold country where discourse doth freeze in  
 the air all winter, and may be heard in the next sum-  
 mer, or at a great thaw.

Hardens his stubborn heart, but still as ice  
 More hardened after thaw.

It on firm land  
 Thaws not, but gathers heap, and ruin seems  
 Of ancient pile; all else deep snow and ice.

Having let that ice thaw of itself, and frozen the  
 liquor a second time, we could not discern any thing.

When sharp frosts had long constrained the earth,  
 A kindly thaw unlocks it with cold rain,  
 First the tender blade peeps.

Burnished steel, that cast a glare  
 From far, and seemed to thaw the freezing air. *Id.*  
 O solitude! romanick maid  
 Whether by nodding towers you tread,  
 Or climb the Ande's clifted side,  
 Or by the Nile's coy source abide,  
 Or, starting from a half year's sleep,  
 From Hecla view the thawing deep,  
 Thee, fond nymph! again I woo,  
 And again thy steps pursue.

When thowes dissolve the snawy hoord,  
 An' float the jinglin icy-boord,  
 Then water-kelpies haunt the foord,

By your direction.

THAWING (from thaw), the resolution of ice  
 into its former fluid state by the warmth of the  
 air. See CONGELATION, and FROST.

THAXTED, a market-town and parish in  
 Dunmow hundred, Essex, near the rise of the  
 Chelmer, six miles from Dunmow, and forty-  
 seven north-east of London. The manufacture  
 of cutlery was formerly carried on here to a great  
 extent. The church is a neat and spacious Go-  
 thic building, with a tower and lofty spire, and  
 the Dissenters and Quakers have neat meeting-  
 houses. It was formerly a borough, and much  
 more considerable than at present. Here are  
 alms-houses, a school, and other charities.  
 Market on Friday. Fairs, Monday before Whit-  
 Sunday, and August 10th.

TILE, *article*. Sax. *ðe, ðe*; Belg. *de*; Teut.  
*die*. The definite article, sometimes used by way  
 of consequential reference, and often abridged  
 in poetry and in pronunciation.

Your son has paid a soldier's debt:  
 He only lived but till he was a man;  
 The which no sooner had his prowess confirmed,  
 In the unshrinking station where he fought,  
 But like a man he died.

Who had the especial engines been to rear  
 His fortunes up into the state they were.

Unhappy slave, and pupil to a bell,  
 Unhappy till the last the kind releasing knell.

The adorning thee with so much art  
 Is but a barb'rous skill:

'Tis like the pois'n'g of a dart,  
 Too apt before to kill.

In this scale gold, in t' other fame does lie.  
 He put him in mind of the long pretence he had  
 to be groom of the bed-chamber, for the which he  
 could not chuse but say that he had the queen's pro-  
 mise.

The fruit  
 Of that forbidden tree, whose mortal taste  
 Brought death into the world.

As all the considerable governments among the  
 Alps are commonwealths, so it is a constitution the  
 most adapted of any to the poverty of these coun-  
 tries.

The longer sin hath kept possession of the heart,  
 the harder it will be to drive it out.

Night shades the groves, and all in silence lie,  
 All but the mournful Philomel and I.

THEATINES, a religious order in the Romish  
 church, so called from their principal founder,  
 John Peter Caraffa, the bishop of Theate, or  
 Chieti, in the kingdom of Naples, and afterwards  
 pope under the name of Paul IV. The names  
 of the other founders were Gaetan, Boniface,  
 and Consigliieri. These four pious men, desiring  
 to reform the ecclesiastical state, laid the found-



dation of an order of regular clerks at Rome in the year 1524. Pope Clement VII. approved the institution, and permitted the brethren to make three religious vows, to elect a superior every three years, and to draw up statutes for the regulation of the order. They first endeavoured, by their example, to revive among the clergy the poverty of the apostles and first disciples of our Saviour, and were the first who assumed the title of regular clerks.

**THEATRE**, *n. s.* } *Fr. theatre; Latin*  
**THEATRICAL**, *adj.* } *theatrum.* A place in  
**THEATRICALLY**, *adv.* } which shows are exhibited; a playhouse; a place built like a theatre with rising seats or steps: the adjective and adverb corresponding.

This wise and universal theatre  
 Presents more woful pageants than the scene  
 Wherein we play. *Shakespeare. As You Like It.*  
 When the boats came within sixty yards of the pillar, they found themselves all bound, yet so as they might go about, so as they all stood as in a theatre beholding this light. *Bacon.*

Theatrical forms stickle hard for the prize of religion: a distorted countenance is made the mark of an upright heart. *Decay of Piety.*

Shade above shade, a woody theatre  
 Of stateliest view. *Milton.*

In the midst of this fair valley stood  
 A native theatre, which, rising slow,  
 By just degrees o'erlooked the ground below. *Dryden.*

Load some vain church with old theatrick state,  
 Turn arcs of triumph to a garden gate. *Pope.*

Dauntless her look, her gesture proud,  
 Her voice theatrically loud. *Id.*

No theatres of oaks around him rise,  
 Whose roots earth's centre touch, whose heads the skies. *Harte.*

This is sufficiently peevish in a man, who, when he mentions his exile from the college, relates, with great luxuriance, the compensation which the pleasures of the theatre afford him. *Johnson.*

So if characters were brought upon the stage with their limbs disjointed by torturing instruments, and the floor covered with clotted blood and scattered brains, our theatric reverie would be destroyed by disgust, and we should leave the playhouse with dejection. *Darwin.*

**THEATRE.** See **DRAMA.**

**THEATRE**, in architecture, a building set apart for the purposes of dramatic representation. After their temples, the theatres were, by the Greeks and Romans, considered as the most considerable of their public edifices; and, in order to account for this, it must be borne in mind that their uses were not restricted to the mere exhibition of shows, but that they were applied to other and more important purposes; they served as places of assembly when the people gathered together on any interesting political occasion, and hence the walls of the theatre almost as frequently re-echoed with the deliberations of the citizens in matters of great public interest, as with the merriment of the masked comedian or the lamentations of his tragic coadjutor.

The Greeks were in the habit of giving Bacchus the credit of having invented this species of edifice, and the theatres were accordingly very often dedicated to him, as was the case with

that most magnificent one at Athens, of which the reader will find, as he proceeds, a succinct description. In the first instance they constructed, in order to preserve the performers and spectators from the heat of the sun, a sort of huge cabin made of branches of trees; but this was more easily done when the procession or exhibition occurred in the country. In the towns they erected a scaffold of wood, and Thespis is said to have given his recitations in a chariot or cart. But in process of time, and according to the progression which we may observe in all the arts, the scaffolding became permanent instead of temporary, was surrounded by a wall, and at length shot up into the magnificent theatre, in the construction and decoration of which the extent of Grecian taste and skill was exhausted. In after ages, the Romans followed their example, if not with equal taste, with still greater splendor and luxury.

Ancient authors have treated of the construction of theatres but obscurely and imperfectly. Vitruvius has given us no account either of their dimensions, or of the number of their principal and constituent parts; presuming, it may be supposed, that they had been well enough known, or could never have perished; for example, he does not determine the dimensions of the rows of benches. Among the more modern writers the learned Scaliger has omitted the most essential parts, and the citations of Bulingerus from Athenæus, Hesychius, Eustathius, Suidas, and others, throw but a weak and imperfect light on the real construction of ancient theatres.

An exact description of the theatre of Bacchus at Athens, whose circumference is still visible, and whose ruins are a monument of its ancient magnificence, will give us a true idea of these structures. The famous architect Philo built this theatre in the time of Pericles, above 2000 years ago: it consisted without of three rows of porticoes or galleries, one above the other, and was of a circular form. The diameter was 100 Athenian feet, nearly the same in English measure, for which reason it was called by the Athenians Hecatompodon. A part of the area, which comprehended fourteen feet of the diameter, did not belong precisely to the theatre, being behind the scene. The theatre itself was divided into two principal partitions, one for the spectators, the other for the representators. The parts designed for the spectators were the conistra, which the Romans called arena: the rows of benches, the little stairs, and the gallery called circys. The parts appropriated to the actors were the orchestra, the logeon, or thymele, the proscenium, and the scene. In that part of the edifice allotted to the spectators were twenty-four rows of seats or benches ascending gradually one above the other, and proceeding round the conistra or arena, in an arch of a circle, to the stage, which the Greeks called proscenion. These benches were distinguished eight and eight, by three corridors or passages, which were called diagma. They were of the same figure with the rows of the seats, and were contrived for the passage of the spectators from one story to another, without incommoding those who were already placed. For the same convenience

there were stairs that passed from one corridor to another across the several rows, and near those stairs there were doors by which the people entered from the galleries on the outside, and took their places according to their rank and distinction. The best places were in the middle division, containing eight rows of seats between the eighth and seventeenth: this division was called *bouleuticon*, and designed for the magistrates, the other rows were called *ephebicon*, and were for the citizens, after they were eighteen years of age. The height of each of these rows of benches was about thirteen inches, their breadth about twenty-two inches; the lowest bench was about four feet high from the level of the floor: the height and breadth of the corridors and passages was double the height and breadth of the benches. The sides of the stairs passing from the body to the edifice towards the stage were not parallel; for the space between them grew sharper as they came near the *conistra* or arena, and ended in the figure of a wedge (whence the Romans called them *cunei*), to prevent the falling down of the rain upon those steps that were called *pent-houses* sent up to carry off the water. Above the upper corridor there was a gallery called *circys*, for women, where those who were infamous, or irregular in their lives, were not permitted to enter. This theatre was not near so spacious as that built at Rome by Marcus Scaurus the *ædile*; for in that there was room for 79,000 persons, in this there was room for 6000; it could not contain less, for the suffrages of the people were taken in it, and by the Athenian laws 6000 suffrages were requisite to make a decree of the people authentic.

Thus much for the places appointed for the spectators. As to those which were designed for the actors (which comprehended the orchestra, the logeon or thymele, the proscenium, and the scene), the orchestra was about four feet from the ground, its figure was an oblong square, thirty-six feet in length, extending from the stage to the rows of benches; its breadth is not mentioned in the memoirs we have of this theatre, which were taken upon the spot about 100 years since, by Mons. de la Guillaudière, an ingenious traveller. In certain places of it the music, the chorus, and the mimics were disposed. Among the Romans it was put to a more honorable use, for the emperor and senate had places upon it. Upon the flat of the orchestra, towards the place of the actors, was an elevation or platform called logeon or thymele, which among the Romans was called *pulpitum*; it was higher than the orchestra; its figure was square, being six feet every side, and in this place the principal part of the chorus made their recitations, and in comic interludes the mimics used to perform in it. The proscenion, or stage, was raised above the logeon. That great architect, Philo, contrived the edifice in such a manner as that the representations may be seen, and the voices of the actors may be heard with the greatest advantage. The proscenion was eighteen feet in breadth, and its length extended from one side of the edifice to the opposite side, but not diametrically, being eighteen feet distant from the centre.

The scene, properly speaking, was the columns and ornaments of architecture raised from the foundation, and upon the sides of the proscenion, for its beauty and decoration. Agatharcus was the first architect who found out the way to adorn scenes by the rules of perspective, and Æschylus assisted him. Parascenion signified the entire space before and behind the scene, and the same name was given to all the avenues and passages from the music room to the place where the actors performed.

The theatre of *Regilla*, not far from the temple of Theseus in Athens, was covered magnificently, having a fair roof of cedar. The Odeon, or theatre of music, was covered likewise; but no part of the theatre of Bacchus, which we have described, was covered except the proscenion and *circys*. The Athenians, being exposed to the weather, came usually with great cloaks, to secure them from the rain or cold; and, for defence against the sun, they had the *sciadion*, a kind of parasol, which the Romans used also in their theatres by the name of umbrella: but, when a sudden storm arose, the play was interrupted, and the spectators dispersed. At Athens their plays were always represented in the day time, which made the unroofed theatre much less inconvenient. In that now described, Philo has preserved a just symmetry of architecture, and showed great judgment in assisting the communication of the sounds; for the voice being extenuated in an open and spacious place, where the distant walls, though of marble, could give little or no repercussion to make it audible; he contrived cells in the thickness of the corridors, in which he placed brass vessels supported by wedges of iron, that they might not touch the wall. The voice proceeding from the stage to the corridors, and striking upon the concavity of these vessels, was reverberated with more clearness and force: their number in all was twenty-eight, and they were called *echea*, because they gave an augmentation or an echo to the sound. Outwardly there was a portico, consisting of a double gallery divided by rows of pillars, called the portico of Eumeneus. The floor of this portico was raised a good distance from the ground, so that from the street they ascended to it by stairs. It was of an oblong square figure, embellished with green pallisadoes, to please the eyes of those who walked into it.

Here it was that their repetitions were made, and proposed for the theatre, while the music and symphony were in the Odeon. 'If ever,' says a sensible writer, 'the present generation, or posterity, would dignify the drama with such noble edifices as were constructed for it by the ancient Greeks and Romans, they should enter into articles with the dramatic poets and performers, that no immodest witticisms be repeated, and no lascivious passions expressed on the stage. If the passion of love is to be described, let it be described with decency, as that of Dido for Æneas, in the *Æneid*. Not only the modesty of the spectators is to be scrupulously respected, but likewise every other virtue: when vice is the subject of the drama, it ought to be represented in an odious light; the unfortunate



Mr. Budgel threw himself into the Thames, to do what Cato had done, and Addison had approved. See the bad effects of vice represented as a virtue! That the rules of virtue and decorum be regarded in all respects, the theatres should be removed from the neighbourhood of brothels, or the brothels should be compelled to remove out of the neighbourhood of the theatres; then these amusements would become as innocent as they are diverting. In the situation of a theatre, not only the manners of the people are to be considered, but also their health, by having it in a free and open air. In Athens the scene looked upon the castle hill; Cynosarges, a suburb of Athens, was behind it; the Musæus was on the right hand; and the causeway leading to Pyraum, the neighbouring seaport, was on the other side.

The Olympic Theatre of Vicenza was designed and built in 1583 by Palladio, in imitation of the ancient theatres. Its form is semi-elliptical, it not being possible from the narrowness of the situation to use a semicircle. This semi-ellipsis is encompassed all round with a framework of stairs consisting of fourteen steps of wood for the spectators. Its greater diameter is ninety-seven feet and a half, and its lesser, as far as the stage, is about fifty-seven feet and a half. At the summit of this staircase, or receding galleries of stairs, is a corridor of the Corinthian order, which, from the narrowness of the ground, could not be detached from the outer wall all round. Palladio therefore filled up the nine central and the three external intercolumniations, where the columns touched the external wall, with niches and statues. The stage is constructed with two tiers of columns, both of the Corinthian order, and surmounted with a light and well proportioned attic. On the stylobate of the second story are placed statues, and the intercolumniations are enriched with niches and statues. The panels of the attic are ornamented with bassi and mezzi rilievi of the labors of Hercules, and the centre panel over the largest of three openings in the proscenium, which is arched, with a representation of an ancient hippodrome. Over this arch is the following inscription:—

VIRTVTI AC GENIO  
OLYMPICORVM ACADEMIA THEATRVM HOC  
A FVNDAMENTIS EREXIT  
ANNO M.D.LXXXIIII. PALLADIO ARCHIT.

In the front of the stage are three openings, through which are seen three majestic avenues diverging right and left, on each side of which are magnificent palaces and private dwellings, finishing with triumphal arches, all planned and erected in alto rilievo, foreshortening and diminishing perspective, by Vincenzo Scamozzi. The exterior of this theatre is by no means suitable to its internal beauty, but it was built, not at the expense of the senate or government of Rome, but by some private Vicentine gentlemen of the Olympic Academy.—Vide l'Origine dell' Accademia Olimpica di Vicenza, con una breve Descrizione del suo Teatro Opera di Ottavio Bertotti Scamozzi, Architetto, published at Vicenza, 1690, by Giovanni Rossi.

The theatre of Parma is commonly supposed to have been the work of Palladio, and finished by Bernini; but neither of them had the smallest share in it. Gio. Battista Magnani, an architect and engineer, and Leonello Spada, a painter, were employed by the duke Ranuccio Farnese to construct and embellish that famous theatre. Its form is semicircular, to which are added two straight sides. Its length from the wall to the front of the stage is about 125 feet; and its breadth, reckoning from the wall behind the boxes, about ninety-three feet. Around the pit, which is about forty-eight feet broad, is erected on a basement, with balusters between the piers, a gradation of fourteen rows of seats, with two entrances at the sides, and a large ducal balcony in the middle. Each entrance is furnished with a large winding staircase. Over these gradual seats are raised two stately boxes, one Doric, and the other Ionic; each with a gradation of four rows of seats. The upper decoration of the boxes is sustained by enchased pillars, between which are arches supported by other pillars, smaller and insulated, which causes a confusion of appearance in the architecture, and a great impediment to the view of the spectators who are in the boxes. A worse effect is produced by the two great lateral entrances which are between the seats and the stage, as the two orders with which they are ornamented, instead of uniting in the best manner, divide, and rudely clash both with the theatre and with the stage. In the middle of the upper arch of these entrances, on a very high pedestal, is an equestrian statue, which seems determined to rush headlong, to destroy all rules of propriety. Great projections and unmeaning arches hurt the stage and the orchestra. But the greatest inconvenience is in the front of the stage being excessively narrow, and distant from the seats, whilst with the greatest ease it might have been constructed wider, and much nearer the spectators. From the aforesaid inconvenience, and the above-mentioned medley figure of the theatre, results this very great evil, that the spectators who are at the sides can see but a very small part of the stage; in compensation for which they hear surprisingly well, as the structure, whether by design or accident, is such that, a person whispering in one part, another situated at the opposite side distinctly hears him. This great theatre has no external decoration; and, by being such a length of time out of use, is in such a ruinous state as scarcely to be visited without danger.—Vide Capi d'Opera del Teatro antico moderno Italiano e straniero, &c. Presso Giacomo Curti, 1789, Venezia.

The theatre of Milan begins from its foundation with a curve of a diameter of seventy-two feet, which gradually widens into two straight sides; whence in the stage the breadth is seventy-seven feet, the front of the stage is sixty-nine feet, and the length of the pit 140 feet which is almost double its breadth. Hence it appears excessively long. The form of this theatre is directly opposite to that of the greatest number of other modern theatres, which all run narrow towards the stage; whilst this is widest at that part. Such a contrivance is very favorable for

seeing as much as is possible in so uncouth a form. This theatre is constructed with all common boxes; nor has it any thing remarkable except that each box has opposite to it a small wardrobe, and between the one and the other is a wide corridor.

The celebrated *theatre of Fane* was designed about the year 1670, by James Torelli, and erected at the expense of himself and five other Fanesian gentlemen. Its form is what the French call the *toilette* form, being in the shape of a dressing-glass, eighty-four feet long, and little more than half broad. It has a convenient double staircase, which leads to the fifth tier of boxes, the last of which forms a lobby with a private gallery at each extremity of the straight sides. There are two columns on each side of the stage, with a niche between each column, where are the statues of Pallas and Minerva, and in the centre is the inscription,

THEATRUM FORTUNE.

The *theatre at Verona* was built by Francesco Galli Bibiena, under the direction of the marquis Maffei, and is situated within the Philharmonic Academy. Its figure is a curve, which gradually enlarges in proportion as it approaches the stage, and the boxes (which are in five tiers) project out more and more as they are distant from the stage; which, although it may have a good effect in looking towards the stage, must have a bad one in viewing the theatre from the stage; the front of which is rather narrow and ill designed. The orchestra is divided from the auditory, that none of the audience may be disturbed with the excessive noise of the instruments: and the stage is reckoned by the Italians to be placed in a just situation, because they think the actors ought never to be seen sideways. Between the auditory and the stage are doors leading to the pit, according to the custom of the ancients, which is an excellent contrivance; for the door ought never to be opposite to the stage, because it not only occupies the best place in the auditory, but weakens the voice of the actor. Besides the exterior roof, this theatre has an internal one of boards, with holes in certain places; which, like the body of a musical instrument, renders the theatre very sonorous. There are commodious staircases at the four angles; the corridors, lobbies, and stairs are convenient, but the principal entrance is on one side. In the Philharmonic Academy they still preserve a model for a theatre in the ancient Greek and Roman manner, which they intended at first to have executed, as it was made expressly for that purpose; but in the act of execution their courage failed them; and, despite the exertions of Maffei, and many other celebrated literary and scientific men, with which Verona abounded, fashion prevailed, and the present theatre was executed by Bibiena. Thus Verona was deprived of an ornament, which would have increased its splendor, and exhibited with advantage those admirable antiquities which it preserved with so much laudable care.

Rome has at least a dozen theatres; which one would suppose were excellently designed after so many monuments of the golden age of

Augustus, and especially after the theatre of Marcellus. However it ought to have been, the fact is otherwise. The worst theatres in Italy are those of Rome; all irregular, ill shaped, defective in construction, and dirty to excess; yet the modern Romans think they have the most elegant theatres in the world. Its largest theatre is that of the *Aliberti*, designed and executed by Ferdinand Bibieni; of an irregular and incommensurable curve, with six tiers of arched boxes. The length of the pit is about fifty-five feet, and its greatest breadth fifty-one feet and a half. It has miserable entrances, wretched staircases, impassable corridors, and the very worst situation in the city.

The *theatre of Tordinona* was built in the seventeenth century by Carlo Fontana, and rebuilt in the last under Clement XII. It is of a figure more approaching a circle than any other. Its greatest diameter is fifty-two feet, and its smallest forty-eight feet. It has six tiers of boxes, the upper tier of which is compressed in the side. Of the internal accommodations and external ornaments there is no occasion to make the least mention, it so much resembles all the rest.

The most modern theatre of Rome is that of *Argentina*, built by the marquis Girolamo Teodoli. It has six tiers of boxes. Its figure is neither circular nor elliptical, but of that irregular shape called the horse-shoe or lyre. Its greater diameter is fifty-one feet, and its lesser forty-six feet. The situation, stairs, passages, and entrances, are all wretched. Neither of these three large Roman theatres has any theatrical front, and they are all built of wood. The rest are in a similar style of inelegance and incommensurateness, but smaller.

The *theatre royal of Naples*, constructed according to a design of the engineer Brigadier Giorgio Metrano in 1737, is also of the lyre or horse-shoe form, that is, a semicircle, the extremities of which elongate in almost straight lines, but draw nearer to each other in proportion as they advance towards the stage. The greatest diameter of the pit is about seventy-three feet, and the smallest sixty-seven feet. There are six tiers of boxes, with a superb royal box in the middle of the second tier. The building is all of stone; the stairs are magnificent; the avenues, vestibules, corridors, and lobbies, spacious. The entrance, separated into three divisions, has some decorations which are neither sufficiently majestic nor appropriate.

The *theatre royal of Turin* was erected in 1740 by count Benedetto Alfieri, a gentleman of the chamber, and principal architect to the king of Sardinia. It is of an oval figure. The pit as far as the stage is fifty-seven feet in length, and about fifty in breadth. There are six tiers of boxes, divided by partitions, but perhaps too much arched. The royal box in the second tier includes five boxes, ornamented with balustrades, and covered with a superb canopy over the centre, and projects out in a convex form, under which is the principal entrance into the pit. The last tier, or, as they call it, the *dovecote* (*piccionara*) has a parapet all balustraded, in the front of which is a circular row of seats for servants out of livery; the left side is for the public;



and the right is separated for the servants of the court, and those of the ambassadors. At the two extremities, contiguous to the stage, are two boxes for persons in the service of the theatre, and, excepting these two partitions, the boxes of this last tier are not in the least separated from the grand corridor which winds around. Under the orchestra is a concavity with two tubes at the ends, which extends to the height of the stage, in order to improve the sound. The ceiling is arched, and above, is a room for the scene painters; but the convexity of the ceiling is covered with strong cemented bitumen, to prevent the water from penetrating through, which would damage the paintings underneath. At the extremities are boxes continued round within the cornice, well caulked and covered with bitumen, and filled with the finest sand, in order to absorb any small quantity of water which by accident may fall in, a very necessary precaution to preserve the painting of the ceiling unhurt. In most of the theatres on the continent the lamp or chandelier is usually suspended from the middle of the ceiling over the pit, within a large aperture, to the great injury of the principal paintings, the voice of the actors, the view of the boxes, and, above all, whoever is underneath is thus exposed to the dust, dirt, and even to no small danger. To avoid these inconveniences, they have contrived what is not much less awkward, the lights to descend from the middle of the ceiling of the proscenium, which is decorated with two Corinthian columns raised on a plain pedestal. Between the columns are two boxes, one above the other, for the actors; over the columns are pediments, and over the stage a larger one, all three inelegant, inappropriate, and ill conceived. The entrances, stairs, apartments of various kinds, galleries, lobbies, and corridors, are of a royal magnificence. There is also sufficient space for the machines of decoration, and every convenience for introducing quadrupeds on the stage, as well as for fire-works. Wells, drains, magazines, and ovens, are not omitted in this well furnished theatre; they have even contrived stoves with tubes communicating to the pit, to warm it when necessary. This considerable theatre has no front belonging to it but what is common with the royal palace to which it is annexed.

The *theatre at Bologna*, finished in 1763, was designed and built by Antonio Galli Bibiena, the son of Ferdinando. In the inside it has the unhappy shape of the section of a bell cut lengthways. Its length in the pit is sixty-two feet, and its breadth in the stage is about fifty. There are five tiers of boxes, each consisting of twenty-five, besides a circular place round the pit four steps high, fenced with a balustrade. The boxes of the first and second tier are central, the two above are in flat sides, and those of the fifth are drawn into half moons, and are without balusters. Over the door are four tiers, but very small. The impostes and pilasters which divide the boxes are overloaded with cartouches, scrolls, brackets, and other wretched barbaries of the Roman school of architecture. The parapets have wretched ill proportioned balustrades and worse projections. The two

frontispieces of the lateral entrances terminate in a line with the supporters of the first story, exactly cutting the columns and the parapet. The other frontispiece of the entrance in the middle is fastened under the principal box, and even with the impost, but with an internal decoration, which is an almost unexampled barbarism in the art. It is pretended by the Bolognese that many disputes, oppositions, and satires, occasioned by the choice of this design of Bibiena, have caused alterations very prejudicial to the theatre. The exterior principal front is ornamented with two orders well divided; the first of Doric columns insulated, over the capitals of which are arches in a barbarous style, perhaps to render the porticoes which are on the same floor lighter. The second order is of a mixed Ionic, with windows between, and with their pediments, which are also in the windows, within the aforesaid porticoes.

Monsieur Soufflot constructed at *Lyons*, in 1756, a theatre of an oval figure, the pit of which up to the stage is fifty-four feet in length and forty feet broad, with seats in the circumference and front. There are three tiers of boxes, each continued without partitions, and equally furnished with seats. The second tier is more reclusive and private than the first, and the third more so than the second. This edifice is well provided with convenient appurtenances, and has a straight front with three tiers of windows, a large balcony in the middle, and a balustrade on the top surmounted with statues.

*Theatre of Montpellier*.—Montpellier has a theatre in the shape of a bell internally, about forty-four feet long, and thirty feet broad. The pit is surrounded with a portico, on the pillars of which are raised several tiers of boxes with spacious corridors round them, and at the bottom furnished with various steps to ascend and enter the apartments, offices, and vestibules; and the various staircases that are around this theatre form a regular edifice of a good appearance on the outside, but nothing to denote its internal use.

The *theatre of the opera at Paris*, built in 1769 from the designs of Moreau, is a long oval, with four tiers of boxes, without partitions, and there are likewise some boxes between the columns of the stage. The pit is about thirty-nine feet broad, and thirty-two feet long, and has a range of seats in front. The outside is simply decorated, and has a very convenient portico.

*Theatre of Versailles*.—In the palace of Versailles M. Gabriel the king's architect erected in 1770 a theatre after the ancient manner, that is, of a semicircular figure, with seats all round, encompassed with a gallery. The court occupies the pit, in the middle of which the king sits.

*Theatre of Petersburg*.—At Petersburg, under the empress Elizabeth, was erected within the imperial palace a superb theatre by count Rastelli, a Venetian. The stage is about seventy-two feet long, and the rest of the theatre, which is elliptical, is in length 103 feet. There are five tiers of boxes, each divided into eighteen. The first tier has a balustrade; the second boxes have arched fronts; the third, drapery à la toi

lette; the fourth is plain, with flat sides; and the fifth open, without any divisions. The imperial gallery, which is in front, was ornamented by Monsieur de la Motte, a French architect, with four columns to support it, and a canopy which extends over all the third tier. The court goes into this gallery to enjoy a sight of the dances, but, to hear the opera better, they go to a box contiguous to the orchestra. The stage is decorated with two columns on each side, and with two flights of stairs to facilitate the communication of the stage with the orchestra and pit.

Our own national theatres are, we presume, so well known to the reader, either visually or by description, that it does not seem necessary to go into the subject here. We may, however, observe, in passing, that the interior of Drury Lane theatre has of late years been re-modelled in a very beautiful manner by Mr. Beazley the architect, and now presents one of the most elegant as well as compact coups d'œil of any theatre in Europe.

The following works may be consulted on the subject of the establishment and disposition of theatres.—Nic. Sabbatini, *Practica di fabricar Scene e Machine ne Teatri Rom.* 1638, 4to. with engravings. Fabr. Carino Motta, *Trattato sopra la Struttura de Teatri e Scene*, Guast. 1676, fol. Enea Arnaldi, *Idea d'un Teatro nelle principali sue Parti simile a Teatri antichi, ad Uso moderno accomodato*, Vic. 1762, 4to. with prints. *Projet d'une Salle de Spectacle pour un Théâtre de Comédie*, Paris 1766, 8vo. *Vues sur la Construction intérieure d'un Théâtre d'Opéra, suivant les Principes des Italiens*, Paris, 1766 and 1767, 2 vols. *Exposition des Principes qu'on doit suivre dans l'Ordonnance des Théâtres modernes*, Paris, 1769, 12mo. *Mémoire sur la Construction d'un Théâtre pour la Comédie Française*, London, 1770, 8vo. Dumont, *Suite des Projets détaillés des Salles de Spectacles particulières, avec les principes de Construction, tant pour la Mécanique des Théâtres que pour les Décorations en plusieurs genres*, Paris, 1773, fifty sheets fol. Roubo, *Traité de la Construction des Théâtres et des Machines théâtrales*, Paris, 1776, fol. with ten engravings. Noverre, *Observations sur la Construction d'une nouvelle Salle d'Opéra*, Paris, 1781, 8vo. Patte, *Essai sur l'Architecture théâtrale, ou de l'Ordonnance la plus avantageuse à une Salle de Spectacle, relativement aux Principes de l'Optique ou de l'Acoustique, avec un Examen des principaux Théâtres de l'Europe, et une Analyse des Ecrits les plus importans sur cette Matière*, Paris, 1782, 8vo. Vinc. Lamberti, *la Regolata Construzione de Teatri*, Nap. 1787, fol. Franc. Ricati, *Della Contruzione de Teatri, secondo il Costume d'Italia, vole a dirse in piccoli Logi*, Bass. 1790, 4to. A Treatise on Theatres, including some Experiments on Sound, by G. Saunders, London, 1790, 4to. Details and representations of ancient and modern theatres may be found in *Trattato de Teatri antichi e moderni*, Ver. 1723, 4to. J. Capi, *Opera del Teatro antico e moderno, Italiano e Straniero*, Ven. 1789.

On the theatres of the ancients, we may consult among other works :—Boindin, *Discours sur*

la Forme et la Construction du Théâtre des Anciens où l'on examine la Situation, les Proportions, et les Usages de toutes ses Parties, in the second volume of *Mémoires de l'Académie*. Ant. Bocchi, *Osservazioni sopra un Teatro antico*, Scoperto in Adria, Venez. 1739, 4to. with plates, and in the third volume of *Mémoires de l'Académie de Cortona*. Girol. del. Pozzo, *Sopra i Teatri degli antichi*. At the commencement of the translation of Sophocles, by Thos. Franklin, London, 1766, 8vo., is a Dissertation on ancient Tragedy, in which we find a chapter entitled, On the Construction of the Greek Theatre. We find engravings of the ancient theatres in several books of travels, such for instance, as the *Voyage Pittoresque de Naples et de Sicile*, by M. Houel, Paris, 1782, fol.

On the theatres of the moderns, more particularly, are : G. Montenari, *Dicorso del Teatro Olimpico di A. Palladio in Vincenza*, Pad. 1733, 1749, 1752, 8vo. *Description du Théâtre de la Ville de Vicenza en Italie*, by A. Palladio, drawn by Patte, Paris, 1779, 4to. The same theatre is found in the *Fabrique e disegni*, di A. Palladio, Vic. 1776—1785, 5. vols. fol. *Plante e spaccato del Teatro di Bologna*, Bol. 1763, fol. Cas. Morelli, *Planta e Spaccato del nuovo Teatro d'Imola in Roma*, Rome, 1780, fol. *Plan de la Salle de l'Opéra de Berlin*, built by the baron de Knobelsdorf, Berlin, 1753, oblong fol. *Description de la nouvelle Salle de Comédie à Breslau, Berlin*, 1783, 4to. *Parallèle des Plans des plus belles Salles des Spectacles publics d'Europe*, by M. Dumont, Paris, 1760. *Description de la Salle de Spectacle de Bordeaux*, by Louis, Paris, 1782, fol. A *Description of the Theatre Royal Drury Lane*, by B. Wyatt, London, 4to.

THEBÆ, the ancient name of Thebes in Bœotia.

THEBAIC (from Thebes or Thebais), of or belonging to Thebes or Thebais.

THEBAIC TINCTURE, a name given to laudanum, or the tincture of opium.

THEBAID, a celebrated heroic poem of Statius, the subject of which is the civil war of Thebes between the two brothers Eteocles and Polynices, or Thebes taken by Theseus.

THEBAID, or THEBAIS, in geography, the ancient name of an extensive district in the south of Upper Egypt, so called from Thebes, its chief city. It is the least fertile and the least populous of any country in Egypt. It is the retreat of many Greek Christians, but is chiefly inhabited by Arabs, who are zealous enemies to the Turks. It is now called Said.

THEBAN (from Thebes), of, or belonging to, or sprung from Thebes.

THEBAN LEGION, a legion of Roman soldiers, who suffered martyrdom for Christianity under Dioclesian and Maximian. It was commanded by St. Maurice, and, together with the officers, amounted to 6600 men. This legion received its name from the city of Thebes in Egypt, where it was raised. It was sent by Dioclesian to check the Bagaudæ, who had excited some disturbances in Gaul. Maurice, having carried his troops over the Alps, the emperor Maximian commanded him to employ his utmost exertions



to extirpate Christianity. This proposal was received with horror both by the commander and by the soldiers. The emperor, enraged at their opposition, commanded the legion to be decimated; and, when they still declared that they would sooner die than do any thing prejudicial to the Christian faith, every tenth man of those who remained was put to death. This perseverance excited the emperor to still greater cruelty; for, when he saw that nothing could make them relinquish their religion, he commanded his troops to surround them, and cut them to pieces. Maurice, the commander of these Christian heroes, and Exuperus and Candidus, officers of the legion, who had chiefly instigated the soldiers to this noble resistance, signalled themselves by their patience and their attachment to the doctrines of the Christian religion. They were massacred, it is believed, at Agaune, in Chablais, the 22d September, 286. Notwithstanding many proofs which support this transaction, Dubordier, Hottinger, Moyle, Burnet, and Mosheim, doubt the fact.

THEBES, an ancient city of Egypt, capital of the district of Thebais, was one of the most renowned cities of the ancient world. It was also called Diospolis, or the city of Jupiter; and was built, according to some, by Osiris, according to others by Busiris. Its length, in Strabo's time, was eighty furlongs, or ten miles; but this was nothing in comparison to its ancient extent, before it was ruined by Cambyzes, which was no less than 420 stadia, or fifty-two miles and a half. The wealth of this city was so great, that, after it had been plundered by the Persians, what was found, on burning the remains of the pillage, amounted to above 300 talents of gold and 2300 of silver.

THEBES was also the name of a celebrated city of ancient Greece. It is supposed to have been built by Cadmus, about the year of the world 2555. This Cadmus, according to the Greeks, was the son of Agenor king of Sidon or of Tyre; but the Sidonians say he was his cook, and that his wife was a musician at court, with whom he ran away into Greece. The Greek writers tell us that, being commanded by his father to go in search of his daughter Europa, whom Jupiter in the shape of a bull had carried off, and forbid to return without her, he built, or rebuilt, the city of Thebes, after having long sought her in vain. He was at first opposed by the Hyantes and Aones; the former of whom he defeated in battle, and forced to retire into Locris; the latter submitted, and were incorporated among his subjects.

Those who endeavour to extract some truth from the multitude of fables in which the early part of the Grecian history is obscured, are of opinion that Cadmus was one of the Canaanites expelled by Joshua; and that he was of the family of the Cadmonites mentioned by Moses and Joshua. He is universally allowed to have introduced the Phœnician letters into Greece, set up the first schools, and introduced brass; which from him had the name of Cadmean given to it. The government of Thebes continued for a long time monarchical; and the names of a number of its kings have been transmitted to us,

with some account of their transactions; but so much obscured by fable that little certain can be determined concerning them. See CREON, ETEOCLES, LAIUS, ŒDIPUS, &c. We shall therefore here only take notice of that period of it when the Thebans emerged from their obscurity, and for a time held the sovereignty of Greece.

*Republic of Thebes until the battle of Leuctra.*—Though the Thebans are famed in the early period of their history for their martial exploits, yet in process of time they seem to have degenerated. At the time of the invasion of Xerxes they were the first people in Greece who were gained over to the Persian interest. On account of this misbehaviour they were become very obnoxious to the other states, especially to the Athenians, whose power and renown increased every day, and threatened at last to swallow them up altogether. The Thebans, being in no condition to oppose such a formidable power, put themselves under the protection of the Spartans, who, out of jealousy to the Athenians, readily forgave them; and so grateful were the Thebans for the kindness shown them at this time, that, during the whole of the Peloponnesian war, Sparta had not a more faithful ally. By these means they not only recovered the government of Bœotia, of which they had been formerly in possession, till deprived of it on account of their siding with the Persians, but their city became one of the first in Greece. By this prosperity the Thebans were so much elated that, when the peace of Antalcidas came to be signed, they refused to agree to it, as they were thus once more deprived of the government of Bœotia; so that it was not without the utmost difficulty that they were overawed into it by the other states. Not content with forcing them to give up this point, however, the Spartans undertook to change the form of the Theban government, which at this time was a democracy, and accomplished it through the treachery of those who had the care of the citadel. The Thebans continued under the power of the Spartans for four years; at the end of which term a conspiracy being formed against them by some of the principal people in the city, among whom was a young nobleman named Pelopidas, the Spartans were massacred and driven out, and the citadel regained. During the tumult, Epaminondas, afterwards the celebrated general, with a number of the best citizens, joined the party of Pelopidas; and the latter, having called a general assembly of the Thebans, proclaimed liberty to them, and exhorted them in the strongest manner to fight for their country. This speech was received with the greatest acclamations; Pelopidas was unanimously proclaimed the preserver of Thebes, and was charged with the management of the war which was then to be declared against Sparta. These transactions so much exasperated the Spartans that they immediately sent their king Cleombrotus against them, though it was then the depth of winter. The Athenians in the mean time, who had hitherto assisted the Thebans, declined any farther connexion, lest they should draw upon themselves the resentment of the Spartans. But they were soon after determined to act again on the same side, by an attempt which the Spartan general

Sphodnas had rashly made on the Pyræum or harbour of Athens. Thus, by means of the Athenians, a powerful diversion was made in favor of the Thebans, who gradually recovered all the towns of Bœotia, and at length began to act offensively against their enemies, and made a powerful invasion in Phocis. They had now many sharp encounters with them; which, though they did not amount to decisive battles, yet raised their courage, and depressed that of the Spartans. In the battle of Tanagra the Lacedæmonians were entirely defeated by the Athenians and their allies. Soon after this, Pelopidas, with a body of only 300 Thebans, entirely routed and dispersed nearly 1000 Spartans. These successes of the Thebans greatly alarmed the Athenians, who continually sought to oppose their growing power. In this opposition they were joined by the Plateans, who on this account became extremely obnoxious to the Thebans, so that they at last came to a resolution to surprise their city. This they accomplished, and entirely destroyed it, together with Thespia, another city extremely well affected to Athens. Soon after this the Thebans, encouraged by their success, began to think of enlarging their territories, and of making encroachments on their neighbours, as they saw other states had done before them. When the general treaty for restoring peace to Greece came to be proposed by the Athenians, and was upon the point of being executed by the rest of the states, the Thebans refused to agree to it unless they were comprehended in it under the name of Bœotians. The consequence was that Sparta declared war against them, about the year A. A. C. 371. The Thebans were in no small consternation to see themselves engaged in a war with the powerful Spartans, without any ally to assist them. However they resolved to make the best defence they could; and put their army, consisting of 6000 men, under the command of Epaminondas; and at LEUCTRA defeated the Spartans with great slaughter, as related under that article.

*Thebes until the death of Pelopidas.*—The victorious general, desirous to improve this great victory, sent a herald, crowned with garlands, to communicate it in form to the Athenians, in hopes that this would be an effectual means to reunite them to the Theban interest. But it proved quite otherwise. Athens, which now looked upon them with a jealous eye, and had then in view the sovereignty of Greece, chose rather, if they could not wholly obtain it, to share it with Sparta, than to let the Thebans into the whole; and therefore even declined giving their herald audience. However, the Thebans took care to strengthen themselves by alliances; and, besides the Arcadians and Eleans, had got the Phocians, Locrians, Acarnanians, Eubœans, and other states, under their dependence: so that they were now in a condition to act offensively against the Spartans. Accordingly, under pretence of assisting the Arcadians, they entered Peloponnesus with a gallant army, with Epaminondas and Pelopidas at their head. Here they were joined by the Arcadian and other confederate forces; so that the whole amounted to 40,000 or 50,000 men, besides great numbers of those who followed the camp rather for plunder

than fighting, and were computed about 20,000 more. The army was divided into four columns, and moved straight towards Sellasia, the place of their rendezvous, from which they pursued their journey with fire and sword towards Sparta. But here they were repulsed by Agesilaus, who was then returned to that metropolis. To repair, in some measure, this disgrace, and at the same time to leave some lasting monument which should redound as much to his glory as to the mortification of the Spartans, Epaminondas left not their territories till he had restored the posterity of the old Messenians to their ancient dominions, out of which they had been banished nearly 300 years, rebuilt their capital, and left a strong garrison for its defence. He was, however, like to have been stopped in his return by Iphicrates, whom the Athenians had sent with 12,000 men to intercept him; but this last loitered so long at Corinth that the Thebans had passed the defiles of Cenchreæ, the chief place where he could have obstructed his retreat had he taken possession of it in proper time. Epaminondas continued his march till he came in full view of the city of Corinth. He found the roads choked up with trees, rocks, stones, and every thing that could render them impassable; and the Corinthians well fortified, and resolute on a stout defence. But he came so furiously upon them, notwithstanding all these difficulties, that they abandoned all their entrenchments and outworks to the Thebans, and fled into the city. Thither these pursued them sword in hand, and made a horrid slaughter of them; insomuch that Corinth must have unavoidably fallen into their hands had their generals pursued these advantages; but whether they were afraid of the Athenians falling upon them, or apprehended some dangerous ambush in a country with which they were but indifferently acquainted; or whether the army was too much weakened through so many fatigues; or, lastly, whether the coldness of the season, it being then the depth of winter, would not permit them to proceed farther, they immediately marched towards Bœotia. This gave such a handle to their enemies, that they met with a very mortifying reception at their return to Thebes, where they were both arrested, and clapped up as state prisoners, for having presumed to prolong their command four months longer than the time limited by law, which time took in almost the whole of their expedition from their first entrance into Peloponnesus. However, at last, the judges being ashamed to proceed any farther, they were both honorably acquitted. This prosecution had been chiefly carried on and encouraged by Meneclides, a discontented Theban, and a bold and able speaker, who, by his artful calumnies at the trial, had so far prevailed with the judges as to get Epaminondas deprived of the government of Bœotia for a whole year, though he could not gain the same advantage against Pelopidas, who was then a greater favorite of the people, as being his senior. By this delay the Spartans, with much difficulty, had recovered themselves from their great defeat at Leuctra, and settled their affairs in as good a posture as they could: but, though they had repulsed the Thebans in



Peloponnesus, yet, from the exploits they had performed there, especially in the dismembering the whole kingdom of Messenia from them, they had still cause to fear what their forces might do under two such generals; and had accordingly taken care to strengthen themselves against them, and to provide themselves with a great number of auxiliaries from other states, especially from Athens, with which they had renewed their old treaty, and had agreed that each should have the command five days alternately. Soon after this treaty the Arcadians renewed the war, and took Pallene in Laconia by storm, put the garrison to the sword, and were presently assisted by the Argives and Eleans, and especially by the Thebans, who sent to them 7000 foot and 500 horse under Epaminondas. This so alarmed the Athenians that they immediately sent Gobrias with some forces to oppose his passage, and he so behaved himself against the Thebans that they were forced to abandon Peloponnesus a second time. This ill success gave fresh occasion to the enemies of Epaminondas to blame his conduct in the highest terms, notwithstanding the singular bravery with which he and his troops had forced the pass. His friends could not but suspect him of partiality for the Spartans, in not pursuing his advantage over them, and making a greater slaughter of them when he had it in his power; whilst his enemies made it amount to no less than treachery to his country: so that their brave general was once more deprived of the government of Bœotia, and reduced to the condition of a private man. He did not continue long under this disgrace, before an occasion offered to make his services again of such necessity to the state, as to give him an opportunity to retrieve his fame, and wipe off the stain which his enemies had thrown upon him. The Thessalians, who had groaned some time under the tyranny of the usurper Alexander, surnamed the Pheræan, sent an embassy to Thebes to implore their aid and protection; upon which Pelopidas was immediately sent as ambassador to expostulate with him on their behalf. He was then in Macedon, whence he took the young prince Philip, afterwards the celebrated Philip II., to protect and educate him; and, upon his return, marched directly to Pharsalus in Thessaly, to punish the treachery of some mercenaries who had deserted the Thebans in that expedition; but, when he came thither, he was surprised to be met by the tyrant at the head of a numerous army before that city, whilst his own was but a handful of men. However, whether he supposed, or would be thought to do so, that Alexander came thither to justify himself, and answer to the complaints alleged against him, he went, with Ismenias his colleague, to him unarmed and unattended, not doubting but his character as ambassador from so powerful a republic, joined to his own character and authority, would protect them from insult or violence: but he found himself mistaken; for Alexander had no sooner got them in his hands than he caused them to be seized, and sent prisoners to Pheræ. The Thebans, highly resenting the indignity offered to their ambassadors sent immediately an army into Thessaly;

but the generals were repulsed with great loss by the Pheræan usurper; and it was owing to Epaminondas, who was among them only as a private sentinel, that they were not totally cut off. For the Thebans, finding themselves in such imminent danger, which they attributed to the incapacity of their generals, had immediately recourse to him, whose valor and experience had been so often tried; and partly by persuasions and intreaties, and partly by threats, obliged him to take the command. This soon gave a different turn to their affairs, and converted their flight into a safe and regular retreat; for he took the horse and light-armed foot, and placed himself at their head in the rear, and charged the enemy with such vigor and bravery that he obliged them to desist from their pursuit. However, as the army had suffered such loss before as not to be able to pursue them in their turn, he was obliged to return with them to Thebes, with their pusillanimous generals; where the latter were fined 12,000 drachmas each, and the former was re-instituted in the command, and sent with a new reinforcement to repair the late dishonor, and prosecute their revenge. The news of his being in full march on this errand greatly alarmed the tyrant; but Epaminondas, preferring the safety of his imprisoned colleague to all other considerations, forbore pushing hostilities to extremes, for fear of provoking the enemy to wreak all his fury on him: to prevent which, he contented himself for a while hovering about with his army, and now and then with such slight skirmishes as should intimidate the tyrant, and bring him the sooner to make some satisfactory offers. Alexander, being fully convinced of the superiority of the Theban general, was glad to accept of a truce of thirty days, and to restore Pelopidas and Ismenias to him; upon which he immediately withdrew his forces, and returned with them to Thebes. By this time Thebes was raised to such a height of reputation and glory as to begin to aim at the sovereignty of Greece. The main obstacle to it was, that the other states grew so jealous of her present greatness, as to enter into the strongest alliances and confederacies to prevent its farther growth; so that not being able now to procure many allies at home, they made no difficulty to seek for them abroad; and the Lacedæmonians, by leading the van, gave them a plausible pretence to follow their steps, and to procure an alliance with Persia, which at that time was ready to accept of their offers on any terms; the only question was, which of the three states should be preferred, Sparta, Athens, or Thebes. The Thebans proposed to their new confederates to send proper deputies to the Persian court to support their respective interests; which they readily agreed to. These were the Arcadians, Eleans, and Argives; at the head of whose deputation Pelopidas was sent on the behalf of the Thebans; which the Athenians being apprised of, appointed two on their part. These, being all arrived at the Persian court, began to pursue each their respective interests; but Pelopidas had by that time gained such credit there, both for his singular address and his extraordinary exploits, that he was distinguished in a particular manner from all

the other deputies, and was received by the king with the highest marks of honor and esteem, who freely owned himself convinced that the Thebans were the people on whom he could most safely depend; and, after having greatly applauded the equity of his demands, ratified and confirmed them with great readiness, to the no small mortification of the other states. The substance of them was, that the liberties formerly granted to the other towns of Greece should be confirmed; that Messenia, in particular, should continue free and independent on the jurisdiction of Sparta; that the Athenians should lay up their fleet; and that the Thebans should be looked upon as the ancient and hereditary friends of Persia. The Thebans took advantage of the dissensions which prevailed among the Greeks as a pretence for increasing their forces; and Epaminondas thought it a proper opportunity for his countrymen to make a bold effort to obtain the dominion at sea, as they had obtained it in a great measure at land. He proposed it to them in a public assembly, and encouraged their hopes from the experience of the Lacedæmonians, who in Xerxes's time had, with ten ships only at sea, gained the superiority over the Athenians, who had no fewer than 200; and added, that it would be a disgrace now to Thebes to suffer two such republics to engross the empire of so extensive an element, without putting in at least for their share of it. The people readily came into his proposal, with extraordinary applause, and immediately ordered 100 galleys to be equipped; and in the mean while sent him to Rhodes, Chios, and Byzantium, to secure those states in their interest, and get what assistance he could from them. His negotiation had all the success that could be wished for, notwithstanding the strenuous opposition of the Athenians, and of their admiral Laches, who was sent with a powerful squadron against him. But what more effectually thwarted all his measures was the work that they found for him on land, and the obliging the Thebans to take part in the quarrels that then reigned among their neighbours; so that whatever projects they had conceived, they proved abortive at this time. During the absence of that general, and of his colleague Pelopidas, the Orchomenians, being spirited up by some Theban fugitives, had formed a design to change the Theban government into an aristocracy; and 300 horsemen of the former had been actually sent to put it in execution. Their project, however, was timely discovered by the vigilance of the magistrates, who caused them to be seized and put immediately to death. They next sent a sufficient force against the city of Orchomenos, with orders to put all the men to death, and to sell the women and children for slaves, which was punctually done; after which they razed that noble city to the ground. Pelopidas was then on his way to Thessaly, at the head of a powerful army, whither he had been sent to assist the Thessalians, who still groaned under the tyranny of Alexander the Phœrean, and had made several brave efforts to recover their liberty, but had been still overpowered by that usurper. Being joined by the Thessalians, he encamped in the face of the

enemy, though far superior in numbers, and consisting of above 20,000 men. A fierce engagement soon ensued, in which both sides fought with uncommon bravery. The place where the battle was fought was called Cynocephala, from several little hills on it, between which there lay a large plain. Both sides endeavoured at first to post themselves on these eminences with their foot, whilst Pelopidas ordered his cavalry to charge that of the enemy below; which they did with such success that they soon put them to the rout, and pursued them over the plain. This obliged the tyrant to gain the tops of the hills, where he greatly annoyed the Thessalians, who endeavoured to force those ascents; so that Pelopidas was obliged to give over his pursuit to come to their relief. This immediately inspired the Thessalians with fresh courage, who again charged the enemy at several onsets; and soon threw them into such disorder that they were forced to give way. Pelopidas no sooner perceived the advantage, than he began to look about for Alexander, with a design of engaging him. Having found him out as he was commanding his right wing, and endeavouring to rally his men, he moved directly to him; and, being got near enough to be heard by him, challenged him to decide the battle by single combat. Alexander, instead of accepting the offer, turned about, and, with all the speed he could, ran to screen himself amongst his guards. Upon this, Pelopidas charged him with such furious speed that he obliged him to retire farther, and shelter himself within the thickest ranks; the sight of which made him attack with fresh vigor, and fight more desperately against him. He tried in vain several times to break through their ranks to reach him, cutting down great numbers of those that came forward to oppose him: but his eagerness at length exposed him so far to the enemy's darts that some of them went quite through his armour, and gave him a desperate wound or two, while the rest advanced and stabbed him in the breast with their spears.

*Thebes, to the death of Epaminondas.*—It is scarcely possible for words to express the grief and despair which not only his brave Thebans, but likewise the Thessalians and other allies showed at the sight of their slain general: some of the latter, who had perceived the danger he was exposed to, came down the hill with all possible speed to his relief; but, when they perceived that they were come too late to save him, both they and the rest of the little army thought on nothing now but to revenge his death. They rallied accordingly, both horse and foot, as quickly as possible, and began to charge the enemy afresh, and with such desperate fury that they at length gained a complete victory over them, and killed above 3000 of them in their pursuit, besides a much greater number which they had slain on the field of battle, though they still looked upon all these advantages as vastly too small to compensate the loss of their brave general. The news of his death had no sooner reached Thebes, than the whole city went into mourning. However, they sent a reinforcement to the army of 7000 foot and 700 horse, as well to revenge the death of that general, as to im-



prove the victory he had gained over the enemy; by the help of which they fell so furiously on them, that they quickly broke and totally defeated the shattered remains of Alexander's army. Hereupon he was forced to sue for peace, and to accept it on such conditions as the conquerors thought fit to impose. He was at length despatched in his bed by his wife Thebe, assisted by her brothers, about seven years after his defeat. His body was afterwards dragged along the streets, trodden under foot, and left a prey to the dogs. All this while the Thebans were watching to improve every commotion that happened, every success they met with, to the forwarding of their then favorite project, of increasing their power, and to give laws to Greece. Their late success in Thessaly, and the rupture between the Arcadians and Mantineans at the same time, about some consecrated money which the former had taken out of the temple of Olympia to pay their troops employed against the Eleans, and which the latter called a downright sacrilege, besides other discords in the other states of Greece, gave fresh encouragement to Thebes to set up for arbitress in those disputes; and so much the more, as those who had embezzled the sacred money, and wanted rather to embroil matters than to have them brought to light, sent that republic word that the Arcadians were just upon the point of revolting to the Spartans, and advised them to come and put an immediate stop to it. At the same time they despatched some private directions to a Theban officer at Tegea, to apprehend several of their own people as disturbers of the peace. This was accordingly done, and several eminent persons were confined as prisoners of state; they were soon after discharged, and loud complaints were made against such arbitrary and unjust proceedings. The officer was accused before the Theban senate for having intermeddled in their affairs, and endeavoured to interrupt the good correspondence between the two states. It was even insisted on, by some of the Tegeans, that he should be indicted and proceeded against by his principals; whilst the more moderate, who foresaw the consequences that were likely to attend such appeals, and that it would infallibly bring the Thebans upon them, loudly protested against their marching into their territories, and did all they could to prevent it. The Thebans, however, were become too powerful and ambitious to miss so fair an opportunity of getting once more footing in Peloponnesus; and Epaminondas was so far from making a secret of their design that he told the Arcadian deputies, in justification of it, that as it was on their account that the Thebans engaged in the war, they had acted treacherously with them in making peace with Athens without their consent. This speech alarmed them greatly; so that even those who were best affected to the Thebans disliked it; and all who had the welfare of Peloponnesus at heart agreed with the Mantineans, that there was no time to be lost to use all proper means to prevent the impending storm. Athens and Sparta were accordingly applied to, and were easily prevailed upon to assist the Mantineans against the Thebans; and, to pre-

vent all disputes about the command of the army, it was agreed that each state should have it in its own territories. But Epaminondas set off in full march at the head of his Bœotian troops, with some Eubœan auxiliaries, and a body of stout Thessalian horse; and was joined by the Messenians, Argives, and several other nations, as soon as he had entered Peloponnesus. The confederate army against him had ordered their rendezvous at Mantinea, the place which they concluded would be first attacked, as being the chief seat of those who had revolted from the Thebans. But, whilst they were securing themselves on that side, Epaminondas, who wisely considered how far this confederacy and expedition must have drained Sparta of its main strength, broke up privately from Nemæa, where he had lain for some time encamped, and marched all that night to surprise that important capital; but, his project being discovered, the vigilant king took care to disconcert it; so that, though the Theban general made several vigorous assaults on that city, he was so stoutly repulsed, and the Spartans behaved with such intrepid valor, that he was forced to retire and turn his arms against Mantinea, which he judged to be quite defenceless; and indeed it was not only drained of its troops, but likewise of its inhabitants, who took that opportunity to gather in their harvest, and were scattered all over the country; so that he would not have met with any difficulty in gaining the town, had not the Athenian auxiliaries come unexpectedly to its relief, and given him a fresh repulse. These two last defeats greatly exasperated the Theban general; and what added to his difficulties was, that the time allotted him for his expedition was almost expired. He was moreover got far into the enemy's country, and saw how narrowly they watched all his motions, and how well prepared they were to oppose him. Under all these difficulties, he considered that he must immediately resolve upon a decisive battle. In this engagement Epaminondas made the wisest disposition of his troops, attacked and fought with the most intrepid courage and conduct, and had opened himself a way through the Spartan phalanxes, thrown them into the utmost confusion, and made a terrible slaughter of them, insomuch that the field of battle was covered with their wounded and slain; when in the heat of the fight, having ventured too far, to give them a total overthrow, the enemy rallied again, pouring three volleys of darts at him, some of which he drew out and returned to them, till at length, being covered with wounds, and weakened with the loss of blood, he received a mortal wound from a javelin, and was with great difficulty rescued from the enemy by his brave Thebans, and brought alive, though speechless, into his tent. As soon as he had recovered himself, he asked his friends what was become of his shield; and, being told that it was safe, he beckoned to have it brought to him. He next enquired which side had gained the victory; and, being answered the Thebans, he replied, then all is well; and, upon observing some of his friends bewailing his untimely death, and his leaving no children, he answered, Yes; I have left two fair daughters, the victory

of Leuctra, and this of Mantinea, to perpetuate my memory. Soon after this, upon drawing the javelin out of his body, he expired.

*Thebes, until its total destruction by Alexander.*

—The consequence of this great general's fall, and of this bloody fight, in which neither side could boast any great advantage over the other but a great loss of men on both sides, insomuch that Xenophon makes it a drawn battle, was, that both parties agreed on a cessation of arms, and parted, as it were by consent, to take care of their wounded and slain. The Thebans indeed thus far gained the greater share of glory, that they renewed the fight, and, after a most desperate contest, gained the victory over those Spartans that opposed them, and rescued the body of their dying general out of their hands. However, an effectual end was put to this bloody war, and a general peace agreed on by all but Sparta; who refused it only because the Messenians were included in it. But as to the Thebans, they had no great reason to boast of this dear bought victory; since their power and glory began to decline from that very time; so that it might be truly said that it rose and set with their great general. On the death of Epaminondas, the Thebans relapsed into their former state of inactivity and indolence; and at last having ventured to oppose Alexander the Great, their city was taken, and the inhabitants slaughtered for several hours, after which the buildings were destroyed. See MACEDON. Thebes was rebuilt by Cassander, but never afterwards made any considerable figure among the states of Greece. About the year 146 B. C. it fell under the power of the Romans, under which it continued till the extinction of their empire by the Turks.

The glory of Thebes belongs to a period prior to the commencement of authentic history. In proportion as Egypt was modernised, her capital was transferred nearer to the Mediterranean; a change connected with the convenience of trade and subsistence, and perhaps with changes in the physical structure of the valley of the Nile. At the time of the Persian invasion, Memphis, a little above Cairo, had supplanted Thebes. The Ptolemies transported the seat of empire to Alexandria. In the reign of Ptolemy Philopater, Thebes revolted, and being taken, after a siege of three years, was so plundered and ransacked, that ever after it was scarcely considered an Egyptian city. Yet, under the name of Dioapolis, such magnificent descriptions of its monuments were given by Strabo and Diodorus, as caused the fidelity of those writers to be called in question, till the observations of modern travellers confirmed their accounts. Thebes, in the earlier periods of the Christian era, was the residence of two bishops: at present its site presents only a few scattered villages, consisting of miserable cottages, built in the courts of the temples. The ancient structures, however, still remain, in a state of wonderful preservation, extending for seven or eight miles along the banks of the river.

Almost the whole of this space is covered with magnificent portals, obelisks decorated with the most beautiful sculpture, forests of columns, and long avenues of colossal statues.

The eastern side is distinguished by the temples of Carnac and Luxor, the western by the Memnonium, or palace of Memnon, and by the sepulchres of the kings. The largest of these temples, and of any in Egypt, is that at Carnac. Diodorus describes it as thirteen stadia, or about a mile and a half in circumference, which agrees sufficiently with the observation of Denon, that it may be walked round in half an hour. Notwithstanding its immensity, however, Denon prefers to it, in point of grandeur of execution, those of Edfu and Tentyra. He supposes it to have been constructed at that earlier period, when architectural grandeur was supposed to consist chiefly in magnitude. The obelisks, and some of the ornaments upon the exterior gates, present a chasteness and elegance which appear to him to indicate a later origin. Mr. Hamilton, however, appears to estimate this temple more highly, and to consider it as upon the whole the most wonderful of the Egyptian edifices. It has twelve principal entrances, each of which is composed of several colossal gateways or moles, besides other buildings attached to them, in themselves larger than most other temples. The sides of some of these moles are equal to the bases of many of the pyramids, and are built like them, sloping inwards, each layer of stone projecting a little beyond the one which is above. One of the gateways is entirely of granite, adorned with the most finished hieroglyphics. On each side of many of them have been colossal statues of basalt, breccia, and granite, from twenty to thirty feet high, some in an erect, others in a sitting position. Avenues of sphinxes lead in several directions to the entrances, and one of them is continued the whole way across the plain to Luxor. The body of the temple (which is preceded by a large court, at whose sides are colonades of thirty columns in length, and through the middle of which are two rows of columns fifty feet high) consists first of a prodigious hall or portico, the roof of which is supported by 134 columns, some twenty-six, others thirty-four feet in circumference; four beautiful obelisks then mark the entrance to the shrine, which consists of three apartments, built entirely of granite. The principal room, which is in the centre, is twenty feet long, sixteen wide, and thirteen high. Three blocks of granite form the roof, which is painted with clusters of gilt stars on a blue ground, and the walls are covered with painted sculptures. Beyond this are other porticoes and galleries, continued to another entrance, distant 2000 feet from that at the western extremity of the temple. The sculptures, of which the most interesting are those on the northern wall of the temple, not only display considerable skill, but throw light on the art and system of war in these remote ages. An Egyptian conqueror, with the hawk flying over his head, and his standard marked by the ring and cross, the Egyptian type of divine power, is seen trampling over heaps of slaughtered enemies. The fugitives are variously either flying, calling aloud for quarter, or receiving their death wounds. Close to the scene is a party of captives, with the same dresses they wore in the battle, but with their



hair and beards suffered to grow, as a mark of servitude, and employed in felling trees in the midst of a wood. This action takes place amid mountains and precipices, which are represented with more boldness than ingenuity. Another piece represents a battle on the plain, where the force, consisting of chariots and cavalry, is equally put to flight by the hero. These battles represent such a variety of wounds and situations, and the representation is so excellent, both in regard to the disposition of the whole, and the expression of particular parts, that it is supposed Homer either did or might have borrowed from them many of those varied images and ideas, which form the ornament of his poems. In other representations, the chief is presenting to his deities, captives and other trophies of his victory. The deities most frequently represented are Osiris Ammon, who seems to be the same with Jupiter; Priapus, sometimes called Mendes; Isis, with the head of a lioness; and Hermes, crowned with the crescent and dark disk of the moon. Two of the porticoes appear to have consisted of columnar statues in the character of Hermes, thirty-eight in number, and the least of them thirty feet high. The numerous gateways which form the principal ornaments of the Theban temples are supposed to be the remains of the hundred gates commemorated by Homer. If the military rendezvous were in the courts of the temples, as may very well be supposed, they might easily send out the number of horsemen and chariots described by the poet. There are still nearly fifty of these gateways remaining, in a greater or less state of preservation, each from 100 to 400 feet in length, eighty feet high, and forty feet deep.

About a mile and a quarter above Carnac are the village and temple of Luxor, the entrance to which probably surpasses every thing else that Egypt presents. In front are the two finest obelisks in the world, formed of rose colored granite, and rising, as Denon supposes, after allowing for the portion buried in the ground, to the height of 100 feet. They are composed each of a single block from the quarries of Elephantine, and are between seven and eight feet square at the base. Behind the obelisks are two colossal statues of the same granite, which, though buried in the ground to the chest, measure twenty-one and twenty-two feet thence to the top of their mitres. The propylon or gateway itself is of the greatest magnificence, 200 feet in length, and the top of it fifty-seven feet above the present level of the soil. But the object which above all attracts the attention of the intelligent spectator consists in the sculptures which cover the east wing of the northern front. They contain a representation on a great scale, of a victory gained by one of the ancient kings of Egypt over his Asiatic enemies. The moment chosen for the representation, is that in which the troops of the enemy fly back in confusion to their fortified station, which the victorious Egyptians are on the point of entering. The number of human figures introduced amounts to 1500, of whom 500 are on foot, and 1000 in chariots. The conqueror is represented of colossal size, in the attitude of discharging

an arrow. There is uncommon life and spirit in the attitude of the horses, which are in full gallop, with feathers waving over their heads. Crowds of dead and dying, extended or falling in various attitudes, are seen under the wheels of the car, and under the hoofs and bellies of the horses. On the enemy's side appears every thing that can characterise a host flying in confusion; terror is expressed to the life in their countenance and attitudes. The dying horses are admirable, whether they appear fainting from loss of blood, or rearing up and plunging in the excess of torture. Part of the fugitives seek safety by plunging into the river, in which are mingled horses, chariots, arms, and men, floating or sunk, all expressed in the most faithful manner. The hero is represented as carried by his impetuosity beyond the main body of his own army, and surrounded by enemies, who sink beneath his valor. The Egyptians use the bow and arrow, still the most common arms in Nubia; while the enemy are provided with spears and javelins. In a compartment at the extremity of the west wing of the gateway, the conqueror appears, after the victory, seated on his throne, while eleven of the principal captive chieftains are lashed together in a row, with a rope about their necks, on the point of being led to execution. The captive monarch himself is fastened to a car, the horses of which are only restrained by the attendant, till the monarch shall mount and drag behind him, in ruthless triumph, the illustrious victim. Several other examples are afforded of that barbarous use of victory which prevailed in those early ages. In all these representations, such spirit is exhibited, that had the artist been better acquainted with perspective, he might have rivalled the most splendid productions of classic or modern art. The above gateway leads to a ruined portico, of very large dimensions: from this a double row of seven columns, with capitals representing the lotus, leads into a court 160 feet long and 140 wide, terminated on each side by a row of columns, beyond which is another portico of thirty-two columns, and then the adytum, or interior apartments of the building. Part of it has here been converted into a Greek church, as appears by the plaster and Christian paintings on the walls, and by circular niches and doorways that are built up. There are many plausible reasons for the conjecture that the sculptures in this temple, tomb, or palace, relate to the birth, reign, and death, of some one of the monarchs of Egypt. These, with a small temple at Medmout, which presents nothing remarkable, are the principal monuments of Thebes on the eastern side of the river.

On the western, the mountains here approach very close to the Nile, and the edifices are built along their foot, and sometimes within their recesses. At El Gournou, the canals, which directed and carried off the overflows of the Nile, are now so out of repair, that the inhabitants seek their abode in the caves of the neighbouring hills. About midway between this village and that of Medinet Abu is the edifice called the Memnonium, being commonly supposed the palace of Memnon, one of the

early sovereigns of Egypt. Norden has delineated it with great care, and considers it eminently calculated to give an idea of the grandeur of Egyptian architecture. The capitals of the columns consisted of large blocks of stone, covered with hieroglyphics, and encrusted with the most lively colors. This sort of painting has neither shade nor degradation. The figures are encrusted like the cyphers on the dial plates of watches, with this difference, that they cannot be detached. This incrustated matter appears to be more durable than fresco or Mosaic work; and it is surprising what brilliancy is still retained by the gold, ultra marine, and other colors. These indeed appear to be better preserved here than in the temples of Carnac and Luxor, and enable the spectator to distinguish the red color and the blue harness of the horses, the blue, green, red, and white of the Egyptian and Bactrian garments, and of the cars of the Egyptians and their adversaries, as well as the fainter blue of the water into which the fugitives have fallen. The sculptures here represent the same subjects as at Luxor, and one wing of the gateway is a complete counterpart of the representation there. Another exhibits, in the most lively manner, the surprise and sack of a town. The victorious troops are entering the houses, laying their hands on the money bags, opening the wine skins, and eagerly swallowing their contents. War chariots and other carriages seem to block up the streets; some of the victors are contending for the plunder, others throwing the helpless inhabitants over the walls. The prisoners are treated in the same barbarous manner, and the captive monarch appears fastened to the conqueror's chariot, for the purpose of being dragged, like Hector, round the walls. Others represent mystical and religious ceremonies.

At some distance from the Memnonium is the temple of Medinet Abu, inferior only in size and massiveness to that at Carnac, being fully equal to it in the richness and variety of its sculptures. One outward enclosure, or brick wall, encloses three distinct though connected buildings, the principal of which is that usually called the Temple. The great gateway is 150 feet long, and sixty feet high, and conducts into a court which is about 120 feet square. On each side of it runs a colonnade, from the first gateway to the next, of equal size and richness. The colonnade on one side consists of eight pilasters, to each of which is affixed a statue of Hermes, with a mitre. The other colonnade consists of as many columns, each richly sculptured. The soffits and walls of these colonnades are crowded with mystical sculptures, the forms and colors of which are well preserved. The king, who is generally presenting offerings to Isis, Osiris, or Priapus, is in some instances standing alone, dressed in the most magnificent garment, and seemingly honored with the joint characteristics of Isis and Osiris. Other parts represent the initiation of the prince into the sacred mysteries. Elsewhere appears a procession in honor of Priapus, perhaps the original of the Dionysiacs of the Greeks, but which does not exhibit those Bacchanalian dances, or inmo-

dest gestures, by which the latter were disgraced. The bulk of the representations, however, consists still of battles and victories, with displays of the most shocking cruelty towards the captives.

Besides these two magnificent edifices, there are several others of less importance on this side of the river. The temple at El Ebek, the most northern of all, is remarkable as being constructed on a very different plan from that of the other Egyptian temples. It has a single row of columns in front, and the rest of the building is distributed into a variety of comparatively small apartments. About a mile westward from the Memnonium, high among the wilds of the desert, is a small temple of Isis, the paintings and sculptures on which are exceedingly well preserved. From this circumstance, and from some peculiarities in its architecture, it has been conjectured to be of later date than some of the others. Nothing can exceed the dreary barrenness of the scene in which it is placed. In the interior of the mountains which rise behind these monuments, on the western bank of the Nile, are found the tombs of the kings of Thebes. Strabo enumerates forty, of which Mr. Hamilton found only ten accessible, but the site of several others could be easily determined, the entrances of which had been choked up by the loose stones that had fallen down from the slopes of the mountain. M. Belzoni, however, conceives that no number approaching to forty could be found in this place. Entering one of these tombs by a plain door, covered with a few slight hieroglyphics, the traveller is astonished to find himself in a long gallery, twelve feet wide and twenty feet high, adorned with sculpture, covered with stucco and paintings. The hieroglyphical figures are innumerable, elegantly formed, and richly colored. The passage terminates in a spacious and lofty apartment, in the centre of which is the sarcophagus, in which the king's body was deposited. The decorations of these sepulchral chambers are uncommonly elegant, and are covered with fine white stucco. The ceilings are finished with yellow figures upon a blue ground, in a style of excellence which would not disgrace the most sumptuous modern palace; and the colors, unless in a very few instances, retain all their original brilliancy. The sarcophagi are composed of red or gray granite, circular at one end, and square at the other: they are all empty, and the lids removed or broken. The innumerable hieroglyphics with which the walls are covered relate to religious mysteries, and are of very difficult interpretation. In front of the entrance is always the representation of a globe, in which is a figure of Osiris Ammon. All sorts of birds and other animals, human figures with wings, and rows of painted forms of mummies, are largely introduced. In one of the tombs, Osiris, seated on a high throne, appears to judge the dead. In others are seen rows of captives, many of them with their heads cut off, or their throats cut; while others are lashed to posts, preparatory to being beheaded. In one of these is found the representation of the Harpers, first given, though in a flattering manner, in Bruce's



Travels. Bruce, however, has the credit of having first drawn the attention of the public to the merits of Egyptian sculpture and painting.

The sepulchral monuments of the private inhabitants of Thebes, though they do not display the same pomp as those of the kings, are more instructive, by the picture which they give of the manners and economical pursuits of the ancient Egyptians. They are excavated in the solid rock, chiefly along the sides of the mountains; and many of them appear to have served as habitations, though now deserted. In some of those paintings, feasts are represented. Here the company sit on chairs, closely resembling those of Europe, and the wood of which is painted of a mahogany color. Each guest has a lotus flower or nosegay in one hand, and the more distinguished are seated in pairs, on small sofas, distinct from the rest. The servants bring dishes from a table which is placed in the middle. In some parts an agricultural scene is introduced: here men are sometimes represented as yoked to the plough, drawing with their hands thrown back on their shoulders. In reaping, the men cut off the ears, the boys and girls pick them from the ground in small baskets, which the women carry away. At the corner of the field, one of the laborers is taking care of the water jars, and cooling the water with a large leaf. In one we see a farm-yard and the stock of a rich land proprietor and breeder of cattle; while, in a neighbouring compartment, bull-fights are presented. In the same grotto is an Egyptian hunt, where the proprietor of the estate rides in a car drawn by two horses, exactly resembling the war-chariots, and is armed with bow and arrows, while his servants attend on foot. The mountains of the desert before him are crowded with ostriches, stags, wolves, leopards, and porcupines. Fishing and fowling scenes are also described; in the latter of which decoy birds appear to have been used. One of these tombs contains the picture of an ornamented farm. Here the proprietor appears to have laid out his grounds with considerable taste. There appears a well stocked vineyard, below which the vintners are treading the wine-press; regular avenues of sycamores; a large piece of water which surrounds the park; a smaller one with aquatic plants; and a rushy bank, typified by the lotus, to supply the lord with water-fowl and fish; the whole commanded by a very neat summer-house.

Such was our knowledge of these tombs, previous to the researches of M. Belzoni. This ingenious gentleman succeeded in opening several of the tombs, which had been hitherto inaccessible. They were found, therefore, in a more complete state of preservation, and with mummies in the sarcophagi, as well as dispersed through the chambers. But his most important discovery consisted in opening one much more extensive and more splendid than any that had been hitherto seen. Its situation was so unpromising that only the resolute determination of M. Belzoni, founded upon symptoms which appeared to him promising, could induce the laborers to undertake it. A magnificent entrance was discovered; but it soon led to a deep pit, which obstructed farther advance, and was evidently intended to appear

as the termination; but a breach in the opposite wall showed that there was still a passage; and, by beams laid across the pit, they succeeded in penetrating. A series of apartments were now found, all decorated with painting and sculpture, representing the same subjects as the other tombs, but presenting examples of superior splendor and skill. The plates in M. Belzoni's work afford the best specimens yet conveyed to Europe of Egyptian art. It is evidently rude in many of its features. There is no light and shade, so that every object appears as a flat surface; and, when a man's legs are in contact, they appear as one. There is no variety or blending of tints, only four or five simple colors are presented, always of the same degree of intensity. The drawing also is often inaccurate. The beauty consists in the brilliancy of the simple colors, and in the expression of the heads. But the most remarkable object of all consisted of a sarcophagus of the finest alabaster, or rather aragonite, nine feet five inches long, and three feet five inches wide. Its thickness is only two inches, and it is transparent when a light is placed in the inside. It is minutely sculptured, within and without, with several hundred figures, which do not exceed two inches in height, and appear to represent the whole of the funeral procession and ceremonies relating to the deceased. While writing this, we find it stated that this sarcophagus has been successfully removed and is conveying to Britain. Some of the processions are marked by the appearance of Jewish, Ethiopian, and Persian captives. The Jews are distinguished by their physiognomy and complexion, the Ethiopians by their color and ornaments, and the Persians by their dress. This confirms the discovery made by Mr. Young, from the hieroglyphics, that the drawings in this tomb contain the names of Nichao and Psammuthis his son (usually called Necho and Psammeticus). The former of these is well known to have conquered Jerusalem and Babylon, while the latter made war against the Ethiopians. We may therefore conclude, that in this remarkable tomb we have the cemetery of these two powerful monarchs.

Among the wonders of Thebes its statues must not be forgotten. The chief attention seems to have been drawn to those attached to the Memnonium. The largest of these is one which has been broken off at the waist, and the upper part laid prostrate on the back. It measures six feet ten inches over the front, and sixty-two or sixty-three feet round the shoulders. The face is entirely obliterated, and indeed the labor and exertion that must have been employed in its destruction are most astonishing. Two other colossal statues, about fifty feet high, are also seated on the plain. Antiquaries have eagerly contested which of these was the vocal statue of Memnon reported by so many of the ancients as emitting a musical sound at sunrise, or when struck. Norden was at the pains to give a blow, but could hear nothing except the ordinary noise produced by concussion upon granite. It appears to us evident that the whole was a trick, an opinion which Strabo, who heard the sound, unequivocally avows, though he did not ascertain the nature of the deception. The at-

tention of travellers has also been strongly attracted by a colossal head of black granite, found lying on the ground close to the Memnonium. Norden particularly admires its charming simplicity, and Hamilton considers it as certainly the most beautiful and perfect piece of Egyptian sculpture. This head, through the exertions of Messrs. Salt and Belzoni, has been conveyed to Europe, and is now to be found in the British Museum.

THECLA, a noble and learned lady of Alexandria, in Egypt, who in the fourth century, transcribed the whole of the Bible in the Greek language, from the original Septuagint copy, then preserved in the Alexandrian Library; and this ancient copy is still preserved, and constitutes the celebrated Alexandrian MS., so often appealed to by commentators. It was presented to king Charles I. by Cyrillus Lucaris, patriarch of Constantinople, in 1628. See SCRIPTURE, sect. VIII.

THEFT, *n.s.* From thief. The act of stealing; the thing stolen.

If the *theft* be certainly found in his hand alive, whether ox, ass, or sheep, he shall restore double.

*Exodus xxii. 4.*

*Theft* is an unlawful felonious taking away of another man's goods against the owner's knowledge or will.

*Cowel.*

His *thefts* were too open; his filching was like an unskilful singer, he kept not time.

*Shakespeare. Merry Wives of Windsor.*

Deceit in trade, a secret *theft*: extortion, an impudent *theft*.

*Holyday.*

The *thefts* upon the public can be looked into and punished.

*Davenant.*

THEFT, in English law, or simple larceny, 'is the feloniously taking and carrying away of the personal goods of another.' By the Jewish law it was only punished with a pecuniary fine, and satisfaction to the party injured; and in the civil law, till some very late constitutions, we never find the punishment capital. The laws of Draco at Athens punished it with death; but his laws were said to be written with blood; and Solon afterwards changed the penalty to a pecuniary mulct. And so the Attic laws in general continued; except that once, in a time of dearth, it was made capital to break into a garden and steal figs; but this law, and the informers against the offence, grew so odious, that from them all malicious informers were styled sycophants; a name which we have much perverted from its original meaning. The punishment of theft throughout the greatest part of Europe is capital. The Anglo-Saxon laws nominally punished theft with death, if above the value of 12*d.*: but the criminal was permitted to redeem his life by a pecuniary ransom; as, among their ancestors the Germans, by a stated number of cattle. But, in the ninth year of Henry I., this power of redemption was taken away, and all persons guilty of larceny above the value of 12*d.* were directed to be hanged; which law continues in force to this day. See LAW.

THEFT-BOTE (from the Saxon *theof*, i. e. a thief, and *bote*, compensatis), the receiving of a man's goods again from a thief, after stolen, or other amends not to prosecute the felon, and

to the intent the thief may escape; which is an offence punishable by fine and imprisonment, &c.

THEIR, *pron.* Sax. *ðeora* of them. Of them: the pronoun possessive, from they: theirs is used in construction when any thing comes between the possessive and substantive.

Prayer we always have in our power to bestow, and they never in *theirs* to refuse.

*Hooker.*

The round world should have shook  
Lions into civil streets, and citizens into *their* dens.

*Shakespeare.*

They gave the same names to *their* own idols which the Egyptians did to *theirs*.

*Raleigh.*

Nothing but the name of zeal appears  
Twixt our best actions and the worst of *theirs*.

*Denham.*

The penalty to thy transgression due,  
And due to *theirs*, which out of thine will grow.

*Milton.*

Vain are our neighbours' hopes, and vain *their* cares;

The fault is more *their* language's than *theirs*.

*Roscommon.*

Which established law of *theirs* seems too strict at first, because it excludes all secret intrigues.

*Dryden.*

For the Italians, Dante had begun to file *their* language in verse before Boccaccio, who likewise received no little help from his master Petrarch; but the reformation of *their* prose was wholly owing to Boccaccio.

*Id.*

And, reading, wish like *theirs* our fate and fame.

*Pope.*

THEISM (from *Θεος*, God). The doctrine, or belief, that there is but one God. This word is synonymous with deism, the latter being derived from the Latin, the former from the Greek. See DEISM.

THEISS, or TISZA, a river of Hungary, which rises from two springs in the county of Marmarosch, on the north-east frontier of the kingdom. The two streams called the Black and the White Theiss soon unite, and, after flowing above 100 miles in a western direction, it turns to the south, and either touches or divides ten distinct counties or districts, before flowing into the Danube at Salankamen, below Titul. In this long course, above 500 miles, it receives a great number of rivers.

THEIST (from Gr. *Θεος*, God). One who believes in the eternal existence of one God. A word synonymous with Deist. See DEIST. All Christians, Jews, and even Mahometans, are Theists, or Deists, though all Theists are not Christians.

THELIGONUM, in botany, a genus of plants belonging to the class of monœcia, and order of polyandria; natural order fifty-third, scabridæ: MALE CAL. bifid: COR. none: the stamina are generally twelve: FEMALE CAL. also bifid: COR. none: only one pistil: CAPS. coriaceous, unilocular, and monospermous. There is only one species, viz. *T. cynocrambe*, which is indigenous in the South of Europe.

THELUSSON (Peter Isaac), a native of Geneva, who settled for many years as a merchant in London, where he accumulated an immense fortune, which, at his death in 1798, he left by will to be disposed of as follows:—Above £100,000 to his widow and children, and all the rest to accumulate till a certain period,



when, if none of his descendants shall then be in life, the whole is to be devoted to the Sinking Fund, to pay off the national debt, and to be entirely at the disposal of the British parliament. It is estimated that, within 120 years, there will be none of his posterity in life, and the sum will then have accumulated to £140,000,000 sterling. His descendants applied to the Court of Chancery to get this will set aside, and subsequently to the House of Lords, in 1805, but without success. This extraordinary case, however, occasioned the passing of the Acts of parliament of the 39th and 40th of Geo. III. cap. 98, restraining the power of devising property, for the purpose of accumulation, to twenty-one years after the death of the testator. Peter Isaac Thelluson, the eldest son of the ingenious will-constructor, was created baron Rendlesham, in the Irish peerage, and was succeeded, on his death, in 1808, by his eldest son, John, who died, leaving no male issue, and was succeeded by his brother William, (third lord Rendlesham). So large a portion of the intended accumulation has been expended in litigation, and the establishment at Brodsworth, Yorkshire, has been maintained on so liberal a scale by the trustees, that it is supposed the accumulation will not finally exceed £1,200,000. Many large estates, however, have been purchased by the trustees, and added to those left by the testator.

**THEME**, *n. s.* Fr. *theme*; Greek *ἔμα*. A subject on which one speaks or writes; an original root or word; a short essay.

Whatever near Eurota's happy stream,  
With laurels crowned, had been Apollo's theme.

*Roscommon.*

**THEMIS**, in the mythology, the goddess of justice, but different from Astraea; she was a daughter of Cælus and Terra, and, according to the poets, was compelled to marry Jupiter, by whom she became mother of the Parca or Fates, and of Dice, Eunomia, Irene, &c. Her oracle was famous in Attica in the age of Deucalion, who consulted her after the deluge, and was directed how to repopulate the world. She is represented with a pair of scales in one hand, and a sword in the other.—Lempriere.

**THEMIS**, the daughter of Ilus, king of Troy, who married Capys, and became mother of Anchises, the father of Æneas.—Apollod. iii. c. 12.

**THEMISON**, a celebrated physician of Laodicea, a disciple of Asclepiades, he founded the Methodic sect, with a view to the more easily teaching and practising the art of medicine. See **MEDICINE**. Themison gave the first account of diacodium, which was prepared of the juice and decoction of poppy-heads and honey. He invented a purging medicine called heira.

**THEMISTIUS**, an ancient Greek orator and philosopher, a native of Paphlagonia, who flourished in the fourth century. He had great interest and favor with the emperors in his time, and, though a heathen, was of a very tolerating spirit. He taught for many years at Constantinople, of which city he was made prefect by Julian and Theodosius; and lived to be very old. More than thirty of his orations are still extant, besides commentaries on several parts of Aristotle's works.

**THEMISTOCLES**, the renowned Athenian admiral, general, and patriot, who gained the battle of Salamis against the Persians. Being banished his country, by his ungrateful fellow citizens, he fled to Artaxerxes king of Persia; but, to avoid taking up arms against his country, he slew himself, 464 B. C. See **ATTICA**.

**THEN**, *adv.* Goth. *than*; Sax. *þan*; Belg. *den*. At that time; afterward; immediately after; at another time; in that case; therefore.

When I tell him he hates flatterers,  
He says he does; being *then* most flattered.

*Shakspeare.*

If an herb be cut off from the roots in winter, and *then* the earth be trodden down hard, the roots will become very big in summer.

*Bacon's Natural History.*

If God's immediate speaking and writing argueth precepts, thus spoken or written, to be perpetually moral; *then* his not writing of precepts argueth them to be temporary.

*White.*

Whiles *then* the apostle moves us to unity, and moves us also to an endeavour to it, he bestows upon us as well a discovery as an exhortation, shewing us not only the end, but also the means.

*Holyday.*

The *then* bishop of London, Dr. Laud, attended on his majesty through that whole journey.

*Clarendon.*

If *then* his providence  
Out of our evil seek to bring forth good.

*Milton.*

Till *then* who knew  
The force of those dire arms.

*Id.*

Now *then* be all thy weighty cares away,  
Thy jealousies and fears; and, while you may,  
To peace and soft repose give all the day.

*Dryden.*

Had fate so pleased I had been eldest born,  
And *then* without a crime the crown had worn.

*Id.*

Thee, *then* a boy, with my arms I laid.

*Id.*

One while the master is not aware of what is done,  
and *then* in other cases it may fall out to be his own act.

*L'Estrange.*

If all this be so, *then* man has a natural freedom.

*Locke.*

**THENAR**, or **TENAR**, in anatomy, the muscle that draws the thumb from the fingers, called also abductor brevis pollicis. See **ABDUCTOR**, and **ANATOMY**.

**THENATH**. See **TAANATH-SHILOH**.

**THENCE**, *adv.* } Contracted, according  
**THENCEFORTH**, } to Minsheu, from there  
**THENCEFORWARD**, } hence. From that place or time; for that reason: thenceforth is from that time: thenceforward, onward from that time: 'from thence,' is a barbarism, but too well supported.

And into what hous that ye entre dwille ghe there,  
and go ye not out from *thence*.

*Wiclif. Luk 9.*

There shall be no more *thence* an infant of days.

*Isaiah lxx.*

*Thenceforth* this land was tributary made  
T' ambitious Rome.

*Spenser.*

From *thence*; from him, whose daughter  
His tears proclaimed his parting with her; *thence*  
We have crossed.

*Shakspeare.*

Fast by the oracle of God; I *thence*  
Invoke thy aid.

*Milton.*

Not to sit idle with so great a gift  
Useless, and *thence* ridiculous, about him.

*Id. Agonistes.*

There plant eyes, all mist from *thence*  
Purge and disperse.

*Milton.*

Wrath shall be no more  
*Thenceforth*, but in thy presence joy entire. *Id.*  
 Avert

His holy eyes ; resolving *from thenceforth*  
 To leave them to their own polluted ways. *Id.*

When he comes to the Lord's table, every com-  
 municant professes to repent, and promises to lead a  
 new life *thenceforward*. *Kettlewell.*

Surat he took, and *thence* preventing fame,  
 By quick and painful marches thither came.

*Dryden.*

Men grow acquainted with these self-evident truths  
 upon their being proposed ; but whosoever does so,  
 finds in himself that he then begins to know a pro-  
 position which he knew not before, and which *from*  
*thenceforth* he never questions. *Locke.*

**THEOBALD** (Lewis), the son of an attorney  
 at Sittingbourn in Kent, was a well known writer  
 and critic in the early part of the eighteenth  
 century. He engaged in a paper called the Cen-  
 sor, published in *Mist's Journal*, wherein, by  
 delivering his opinions with too little reserve  
 concerning some eminent wits, he exposed him-  
 self to their resentment. Upon the publication  
 of Pope's *Homer*, he praised it in terms of ex-  
 travagant admiration, yet afterwards thought  
 proper to abuse it as earnestly ; for which Pope  
 at first made him the hero of his *Dunciad*, though  
 he afterwards laid him aside for another. Mr.  
 Theobald not only exposed himself to the lashes  
 of Pope, but waged war with Mr. Dennis, who  
 treated him more roughly, though with less satire.  
 He nevertheless published an edition of *Shaks-  
 peare*, in which he corrected, with great pains and  
 ingenuity, many faults that had crept into that  
 poet's writings. This edition is still in great es-  
 teem, being in general preferred to those pub-  
 lished by Pope, Warburton, and Hanmer. He  
 also wrote some plays, and translated others  
 from the ancients.

**THEOBROMA**, in botany, a genus of plants  
 belonging to the class of polyadelphia, and order  
 of pentandria ; and in the natural system ranging  
 under the thirty-seventh order, columniferae.  
 The calyx is triphyllous ; the petals, which are  
 five in number, are vaulted and two-horned ; the  
 nectarium is pentaphyllous and regular ; the sta-  
 mina grow from the nectarium, each having five  
 anthers. There are three species, viz. 1. *T. an-  
 gusta*. 2. *T. cacao*, or chocolate tree. This tree  
 delights in shady places and deep valleys. It  
 is seldom above twenty feet high. The leaves  
 are oblong, large, and pointed. The flowers  
 spring from the trunk and large branches ; they  
 are small and pale red. The pods are oval and  
 pointed. The seeds or nuts are numerous, and  
 curiously stowed in a white pithy substance.  
 See **CHOCOLATE**. 3. *T. guazuma*.

**THEOCRACY**, *n. s.* *Fr. theocratie* ; Greek  
*θεο* and *κρατος*. Government immediately su-  
 preintended by God.

The government is neither human nor angelical,  
 but peculiarly *theocratical*.

*Burnet's Theory of the Earth.*

The characters of the reign of Christ are chiefly  
 justice, peace, and divine presence or conduct, which  
 is called *theocracy*. *Id.*

**THEOCRITUS**, the father of pastoral poetry,  
 was born at Syracuse in Sicily, and flourished  
 under Hiero, who began his reign about B. C. 265.

The compositions of this poet are distinguished  
 among the ancients by the name of *Idylliums*,  
 in order to express their smallness and variety :  
 they would now be called *Miscellanies*, or *Poems*  
 on several occasions. The works of this poet  
 were first published in folio by Aldus Manutius  
 at Venice in 1495. But the best edition was  
 published in 1770, in 2 vols. 4to, by Mr. Thomas  
 Warton.

**THEODATUS**, or **THEODOTUS**, the third king  
 of the Ostrogoths in Italy, was raised to the  
 throne by his aunt Amalasuntha, who married  
 him, but whom the villain ungratefully murdered.  
 See **ITALY**.

**THEODOLITE**, a mathematical instrument  
 for taking heights and distances. See **GEOMETRY**.

**THEODORE**, king of Corsica, baron Nieu-  
 hoff in the county of La Marc in Westphalia.  
 He had his education in the French service, and  
 afterwards went to Spain ; but, being of an un-  
 settled disposition, he quitted Spain, and travelled  
 into Italy, England, and Holland, in search of  
 some new adventure. He at last fixed his at-  
 tention on Corsica, and formed the scheme of  
 rendering himself sovereign of that island.  
 He went to Tunis, where he fell upon means to  
 procure some money and arms ; and then went  
 to Leghorn, whence he wrote a letter to the  
 Corsican chiefs Giafferi and Paoli, offering con-  
 siderable assistance to the nation if they would  
 elect him as their sovereign. This letter was con-  
 signed to Count Dominic Rivarola, who acted  
 as Corsican plenipotentiary in Tuscany ; and he  
 gave for answer, that, if Theodore brought the  
 assistance he promised to the Corsicans, they  
 would very willingly make him king. Upon this  
 he, without loss of time, set sail, and landed at  
 Tavagna in spring 1736. He had a few attendants  
 with him ; and his manners were so engaging,  
 and his offers so plausible, that he was proclaimed  
 king of Corsica before Count Rivarola's despatches  
 arrived to inform the chiefs of the terms upon  
 which he had agreed. Theodore instantly assumed  
 every mark of royal dignity. The Genoese were  
 not a little confounded with this unexpected ad-  
 venturer. They published a violent manifesto  
 against Theodore, treating him with great con-  
 tempt ; but at the same time showing they were  
 alarmed at his appearance. Theodore replied  
 in a manifesto, with all the calmness and dignity  
 of a monarch ; but after being about eight months  
 in Corsica, perceiving that the people began to  
 cool in their affections towards him, he assembled  
 his chiefs, and declared he would keep them no  
 longer in a state of uncertainty, being determined  
 to seek in person the support he had so long ex-  
 pected. He settled an administration during  
 his absence, recommended unity in the strongest  
 terms, and left the island with reciprocal assu-  
 rances of fidelity and affection. He went to Hol-  
 land, where he was so successful as to obtain credit  
 from several rich merchants, particularly Jews,  
 who trusted him with cannon and other warlike  
 stores to a great value, under the charge of a su-  
 percargo. With these he returned to Corsica in  
 1739 ; but by this time the French, as auxiliaries  
 to the Genoese, had become so powerful in the  
 island, that, though Theodore threw in his supply  
 of warlike stores, he did not incline to venture



his person, the Genoese having set a high price on his head. He therefore again departed; and, after many unavailing attempts to recover the crown, at length retired to England, where he was reduced so low as to be several years before his death a prisoner for debt in the King's Bench. At length, to the honor of some gentlemen of rank, a charitable contribution was set on foot for him in 1753, by which he was released from prison: but the remainder of his life was spent in extreme poverty. Theodore died 11th December 1756, and was buried in St. Anne's church yard Westminster. He left a son, the late colonel Frederick, who was an accomplished gentleman.

**THEODORET**, a bishop of St. Cyricus in Syria, in the fourth century, and one of the most learned fathers of the church, was born A. D. 386, and was the disciple of Theodorus of Mopsuestes and St. John Chrysostom. Having received holy orders, he was with difficulty persuaded to accept of the bishopric of St. Cyricus, about A. D. 420. He displayed great frugality in the expenses of his table, dress, and furniture, but spent considerable sums in improving and adorning the city of Cyricus. Yet his zeal was not confined to his own church; he went to preach at Antioch and the neighbouring towns, where he became admired for his eloquence and learning, and had the happiness to convert multitudes of people. He wrote in favor of John of Antioch and the Nestorians, against Cyril's Twelve Anathemas; he afterwards attacked the opinions of Nestorius, and was deposed in the synod held by the Eutychians at Ephesus; but was again restored by the general council of Chalcedon, in which he was present, in 451. It is thought that he died soon after; though others say that he lived till A. D. 457. There are still extant Theodoret's excellent Commentary on St. Paul's Epistles, and on several other books of the Holy Scriptures. 2. His Ecclesiastical History, from the time of Arius to Theodosius the Younger. 3. History of the Anchorites. 4. Epistles. 5. Discourses on Providence. 6. A treatise entitled *De Curandis Græcorum Affectibus*; and other works. The best edition is that of Sirmond, in Greek and Latin, in 4 vols. folio.

**THEODORICK**, the first and greatest monarch of the Ostrogoths in Italy. He had many virtues, shaded with some vices. He defeated Clovis king of France, and Odoacer king of Italy, A. D. 526. See FRANCE, GOTHs, and ITALY.

**THEODORICK**, or **THIERRI**, king of Metz; the eldest son of Clovis. See FRANCE.

**THEODORUS**, bishop of Mopsuestes, a city in Cilicia, a learned prelate of the fifth century. He wrote a Commentary on the Psalms, another On the Twelve minor Prophets; which, with some other fragments, are extant. He died A. D. 428. But his works were condemned in the fifth general council, as favoring Nestorianism (see NESTORIANS) and Socinianism.

**THEODOSIUS**, a celebrated mathematician, who flourished in the times of Cicero and Pompey, but the time and place of his death are un-

known. Theodosius chiefly cultivated that part of geometry which relates to the doctrine of the sphere, concerning which he published three books, of which a good English translation was made by Dr. Barrow.

**THEODOSIUS I.**, called the Great, was a native of Spain. The valor he had shown, and the great services he had done the empire, made Gratian, attacked by the Goths and Germans, to admit him as a partner in the government. He received the purple in A. D. 379, aged forty-three. See CONSTANTINOPLE.

**THEODOTUS**, a native of Byzantium, who flourished in the reign of Marcus Aurelius, and at first professed Christianity, but, during the persecution under that emperor, renounced it, and set up a new heresy, called Theodotian, or Theodosian. See THEODOSIANS. He was a tanner by profession.

**THEOGNIS**, an ancient Greek poet of Megara in Achaia, who flourished about the fifty-ninth Olympiad, 144 B. C. We have a work of his extant, concerning a summary of precepts and reflections, usually to be found in the collections of the Greek minor poets.

**THEOGONY**, from *Θεος*, God, and *γεννη*, genitura, seed or offspring. Hesiod gives us the ancient theogony, in a poem under that title. Among the most ancient writers, Dr. Burnet observes, that theogony and cosmogony signified the same thing. In effect, the generation of the gods of the ancient Persians, fire, water, and earth, is apparently no other than that of the primary elements. See POLYTHEISM.

|   |   |
|---|---|
| <b>THEOLOGY</b> , <i>n. s.</i>                                | } <i>Fr. theologic; Gr. θεολογια. Divinity:</i> |
| <b>THEOLOGIAN</b> ,   |   |
| <b>THEOLOGICAL</b> , <i>adj.</i>                              |   |
| <b>THEOLOGICALLY</b> , <i>adv.</i>                            |   |
| <b>THEOLOGIST</b> , <i>n. s.</i>                              |   |
| <b>THEOLOGUE</b> .  | } <i>skilled in divinity:</i>                   |
| theological pertaining to divinity: the adverb corresponding. |   |

The whole drift of the scripture of God, what is it but only to teach *theology*? *Theology*, what is it but the science of things divine? Hooker.

The cardinals of Rome, which are *theologues*, friars, and school-men, call all temporal business, of wars, embassages, shirery, which is under sheriffries. Bacon's Essays.

Some *theologians* defile places erected only for religion by defending oppressions. Hayward.

She was most dear to the king in regard of her knowledge in languages, in *theology*, and in philosophy. Id.

Although some pens have only symbolized the same from the mystery of its colours, yet are there other affections might admit of *theological* allusions. Browne.

The oldest writers of *theology* were of this mind. Tillotson.

A *theologus* more by need than genial bent; Interest in all his actions was discerned. Dryden.

It is no more an order, according to popish *theologians*, than the prima tonsura, they allowing only seven ecclesiastical *theologists*. Ayliffe's Parergon.

They generally are extracts of *theological* and moral sentences, drawn from ecclesiastical and other authors. Swift.

# THEOLOGY.

**THEOLOGY**, or divinity, has been defined that science which treats of the being and attributes of God, his relations to us, the dispensations of his providence, his will with respect to our actions, and his purposes with respect to our end. The word was first used to denote the systems of those poets and philosophers who wrote of the genealogy and exploits of the gods of Greece. Hence Orpheus, Museus, Hesiod, Pherecydes, and Pythagoras, were called theologians; as was Plato, on account of his speculations on the same subject. It was afterwards adopted by the earliest writers of the Christian church, who styled the author of the apocalypse, by way of eminence,  $\delta$  θεολόγος, the divine.

**INTRODUCTION.**—The Pagan systems are treated of under **POLYTHEISM**; and that of the Mahometans under **ALCORAN**, and **MAHOMETANISM**: the only theology of which we have to treat at present is Christian theology, which comprehends that which is commonly called natural, and that which is revealed in the Scriptures of the Old and New Testaments. These taken together, and they ought never to be separated, compose a body of science so important, that, in comparison with it, all other sciences sink into insignificance.

Christian theology, we have said, is divided into two great parts, natural and revealed; the former comprehending that which may be known of God from the creation of the world, even his eternal power and Godhead; the latter, that which is discovered to man only in the Bible. Concerning the extent of natural theology many opinions have been formed; but into these disputes we mean not to enter. It is undeniable that there are some of the principles of theology which may be called natural; for, though it is probable that the parents of mankind received all their theological knowledge by supernatural means, it is still obvious that some parts of that knowledge must have been capable of a proof purely rational, otherwise not a single religious truth could have been conveyed through the succeeding generations of the human race but by the immediate inspiration of each individual. We indeed admit many propositions as certainly true upon the sole authority of the Jewish and Christian Scriptures; but it is self-evident that we could not do either the one or the other, were we not convinced by natural means that God exists, that he is a Being of goodness, justice, and power, and that he inspired with divine wisdom the penmen of these sacred volumes.

## PART I.

### OF NATURAL THEOLOGY.

#### SECT. I.—OF THE BEING AND ATTRIBUTES OF GOD.

The existence of God is the foundation of all religion, and the first principle of the science which is the subject of this article. It is likewise a principle which must command the assent

of every man who has any notion of the relation between effects and their causes, and whose curiosity has ever been excited by the phenomena of nature. This great and important truth the Scriptures no where undertake to demonstrate; but they open with the sublimest and strongest mode of *confirming* it, i. e. by ascribing the entire work of creation to the one Only God; and it may be proved by arguments much more simple than are the first principles of any other science.

We see that the human race, and every other species of animals, is at present propagated by the co-operation of two parents; but has this process continued from eternity? A moment's reflection will convince us that it has not. Let us take any one man alive, and, to avoid perplexity, let us suppose his father and mother dead, and himself the only person at present existing: how came he into the world? It will be said he was produced mechanically or chemically by the conjunction of his parents, and that his parents were produced in the same manner by theirs. Let this then be supposed; it must surely be granted that when this man was born, an addition was made to the series of the human race. But a series which can be enlarged may likewise be diminished; and, by tracing it backwards, we must at some period, however remote, reach its beginning. There must therefore have been a first pair of the human race, who were not propagated by the conjunction of parents. How did these come into the world?

Anaximander tells us that the first men and all animals were bred in warm moisture, enclosed in crustaceous skins like crab-fish or lobsters; and that when they arrived at a proper age their shelly prisons growing dry, broke, and made way for their liberty. Empedocles that our mother earth at first brought forth vast numbers of legs, and arms, and heads, &c., which, approaching each other, arranging themselves properly, and being cemented together, started up at once full grown men. Another of these philosophers relates that there first grew up a sort of wombs, which, having their roots in the earth, attracted thence a kind of milk for the nourishment of the fetus, which in process of time broke through the membranes and shifted for itself; whilst the Egyptian fathers of this hopeful school contented themselves with simply affirming that animals, like vegetables, sprang at first from the bosom of the earth. Surely these sages, or their followers, should have been able to tell us why the earth has not in any climate this prolific power of putting forth vegetable men or the parts of men at present. If this universal parent be eternal and self-existent, it must be incapable of decay or the smallest change in any of its qualities: if it be not eternal, we shall be obliged to find a cause for its existence, or at least for its form and all its powers. But such a cause may have produced the first human pair, and undoubtedly did produce them, without making them spring



as plants from the soil. Indeed the growth of plants themselves clearly evinces a cause superior to any vegetative power which can be supposed inherent in the earth. No plant, from the sturdy oak to the creeping ivy, can be propagated but by seed or slips from the parent stock; but, when one contemplates the regular process of vegetation, the existence of every plant implies the prior existence of a parent seed, and the existence of every seed the prior existence of a parent plant. Which then of these, the oak or the acorn, was the first, and whence was its existence derived? Not from the earth; for we have the evidence of universal experience that the earth never produces a tree but from seed, nor seed but from a tree. There must therefore be some superior power which formed the first seed or the first tree, planted it in the earth, and gave to it those powers of vegetation by which the species has been propagated to this day.

Thus clearly do the processes of generation and vegetation indicate a power superior to those which are usually called the powers of nature. The same thing appears no less evident from the laws of attraction and repulsion, which plainly prevail through the whole system of matter, and hold together the stupendous structure. Experiment shows that very few particles of the most solid body are in actual contact with each other; and that there are considerable interstices between the particles of every elastic fluid is obvious to the smallest reflection. Yet the particles of solid bodies strongly cohere, whilst those of elastic fluids repel each other. How are these phenomena accounted for? To say that the former is the effect of attraction, and the latter of repulsion, is only to say that two individual phenomena are subject to those laws which prevail through the whole of the classes under which they are respectively arranged; whilst the question at issue is concerning the origin of the laws themselves, the power which makes the particles of gold cohere, and those of air repel each other. Power without substance is inconceivable; and, by a law of human thought, no man can believe a being to operate but where it is in some manner or other actually present: but the particles of gold adhere, and the particles of air keep at a distance from each other, by powers exerted where no matter is present. There must therefore be some substance endowed with power which is not material.

Of this substance or Being the power is evidently immense. The earth and other planets are carried round the sun with a velocity which human imagination can hardly conceive. That this motion is not produced by the agency of these vast bodies on one another, or by the interposition of any material fluid, has been shown elsewhere; and, since it is a law of our best philosophy that we are not to multiply substances without necessity, we must infer that the same Being which formed the first animals and vegetables, endowing them with powers to propagate their respective kinds, is likewise the cause of all the phenomena of nature, such as cohesion, repulsion, elasticity, and motion, not excepting even the motions of the heavenly bodies themselves. If this powerful Being, who is the pa-

rent of vegetable and animal life, and the source of all corporeal motions, be self-existent, intelligent, and independent in his actions and volitions, he is an original or first cause, and that Being whom we denominate God. If he be not self-existent and independent, there must be a cause in the order of nature prior and superior to him, which is either itself the first cause, or a link in that series of causes and effects, which, however vast we suppose it, must be traced ultimately to some one Being, who is self-existent, and has in himself the power of beginning motion, independent of every thing but his own intelligence and volition. In vain the Atheists allege that the series may ascend infinitely, and for that reason have no first mover or cause. An infinite series of successive beings involves an absurdity and contradiction.

To such reasoning it has been objected, 'Why, if the Author of Nature be a benevolent Being, are we necessarily subject to pain, diseases, and death? Our reply to this is, Because from these evils Omnipotence itself could not in our present state exempt us, but by a constant series of miracles. The world is governed by general laws, without which there could be among men neither arts nor sciences. As long as we have material and solid bodies capable of motion, liable to resistance from other solid bodies, supported by food, subject to the agency of the air, and divisible, they must necessarily be liable to change, it would seem, if not to pain, disease, corruption, and death. Sickness, pain, and the dread of death, certainly now serve the best purposes. Could a man be put to death, or have his limbs broken, without feeling pain, the human race had long ago been extinct. If we felt no uneasiness in a fever, we should be insensible to the disease, and die before we suspected our health to be impaired. The horror which generally accompanies our fear of death tends to make us careful of life, and prevents us from quitting this world rashly. Thus, from every view that we can take of the works and laws of God, and even from considering the objections which have sometimes been made to them, we are compelled to acknowledge the benevolence of their Author.

The substance or essence of this self-existent, all-powerful, infinitely wise, and perfectly good Being, is to us wholly incomprehensible. That it is not matter, is shown by the process of argumentation by which we have proved it to exist; but what it is we know not. It is sufficient for all the purposes of religion to know that God is somehow or other present to every part of his works; that existence and every possible perfection is essential to him; and that he wishes the happiness of all his creatures. From these truths we might proceed to prove and illustrate the perpetual superintendence of his providence, both general and particular, over every the minutest part of the universe. See PROVIDENCE.

#### SECT. II.—OF THE DUTIES AND SANCTIONS OF NATURAL RELIGION.

But from the short view we have taken of the divine perfections, it is evidently our duty to reverence in our minds the self-existent Being to

whom they belong. He who has considered seriously the power, the wisdom, and the goodness, displayed in the works of God, must be convinced that he has no imperfection; that his power can accomplish every thing which involves not a contradiction; that his knowledge is intuitive, and free from the possibility of error; and that his goodness extends to all without partiality. With silent gratitude and devotion glowing in the breast of the contemplative man, he will be careful not to form even a mental image of that all-perfect Being to whom they are directed; for he knows that God is not material. The man who has any notion of the perfections of the supreme Being will never speak lightly of him, or make use of his name at all but on great and solemn occasions. Whether worship is a fruit of natural religion is a point of dispute; but no doubts can be entertained as to the foundation of moral virtue. Reason clearly perceives it to be the will of our Maker that every individual of the human race should treat every other individual as, in similar circumstances, he could justly expect to be treated himself. It is thus only that the greatest sum of human happiness can be produced.

There are few questions of greater importance, than 'What are the sanctions by which natural religion enforces obedience to her own laws?' Natural religion, as a system of doctrines influencing the conduct, is exceedingly defective in this point, unless it afford sufficient evidence, intelligible to every ordinary capacity, of the immortality of the soul, or at least of a future state of rewards and punishments. That it does afford this evidence is strenuously maintained by some deists, and even by many philosophers, who profess Christianity. One great argument made use of to prove that the immortality of the soul is among the doctrines of natural religion, is the universal belief of all ages and nations that men continue to live in some other state, after death has separated their souls from their bodies. Hence it is argued *omnium consensus natura vox est*. But there appears not to be any proof of that doctrine being the deduction of human reasoning. The popular belief of Paganism, both ancient and modern, is so fantastic and absurd, that it could never have been rationally inferred from what nature teaches of God and the soul.

To us who know, by stronger evidence, that the soul is immortal, and that there will be a future state in which all the obliquities of the present shall be made straight, the argument drawn from the moral attributes of God, and the unequal distribution of the good things of this life, appears to have the force of demonstration. Yet none of us will surely pretend to say, that his powers of reasoning are greater than were those of Socrates and Cicero; and therefore the probability is, that, had we been like them destitute of the light of revelation, we should have been disturbed by the same doubts.

But were the arguments which the light of nature affords for the immortality of the human soul as absolutely convincing as any geometrical demonstration—natural religion would still be defective; because it points out no method by

which such as have offended God may be certainly restored to his favor. This is the grand theme and object of revealed religion, or theology; and to this, therefore, we now turn with gratitude. These Scriptures it is now our business to examine.

## PART II.

### OF REVEALED THEOLOGY.

#### SECT. I.—OF THE DIVISIONS OF THEOLOGY.

Artificial systems of theology are commonly divided into two great parts, the theoretic and the practical; and these again are subdivided into many inferior branches. Under the theoretic part are sometimes classed—

1. *Dogmatic theology*; which comprehends an entire system of all the dogmas or tenets which a Christian is bound to believe and profess. The truth of these the divine must clearly perceive, and be able to enforce upon his audience; and hence the necessity of studying what is called—

2. The *exegesis*, or the art of attaining the true sense of the Holy Scriptures; and,

3. *Hermeneutic theology*, or the art of interpreting and explaining the Scriptures to others; an art of which no man can be ignorant who knows how to attain the true sense of them himself.

4. *Polemical theology*, or controversy; and,

5. *Moral theology*, which is distinguished from moral philosophy, or the simple doctrine of ethics, by teaching a much higher degree of moral perfection than the mere light of reason could ever have discovered, and adding new motives to the practice of virtue.

The practical sciences of the divine are—

1. *Homiletic, or pastoral theology*; which teaches him to adapt his discourses from the pulpit to the capacity of his hearers, and to pursue the best methods of guiding them by his doctrine and example in the way of salvation.

2. *Catechetical theology*, or the art of teaching youth and ignorant persons the principal points of evangelical doctrine, as well with regard to belief as to practice.

3. *Casuistic theology*, or the science which decides on doubtful cases of moral theology, and that calms the scruples of conscience which arise in the Christian's soul during his journey through the present world. We have mentioned these divisions and subdivisions of the science of theology, not because we think them important, but merely that our readers may be at no loss to understand the terms when they meet with them in other works. Of such terms we shall ourselves make no use.

#### SECT. II.—OF GOD AND HIS ATTRIBUTES.

But before we compare the creation of the world, and what the Scripture says of it, with the opinions of the most enlightened ancients on the same subject, it will be proper to attend to the appellation which the Jewish historian at once gives to God; and enquire what light is thrown upon it by subsequent revelations. The passage in the original is *בראשית ברא אלחים*, where it is remarkable that the Creator is denominated by a noun in the plural number. This is cer-



tainly a very extraordinary denomination for the *ONE* supreme and self-existent Being; and what adds to the strangeness of the phraseology is, that the *verb* with which this plural noun is made to agree is put in the singular number. What now could be the sacred historian's motive for expressing himself in this manner? His style is in general remarkable for its plainness and grammatical accuracy; and we believe it would be difficult to find in all his five books a single phrase not relating to the Supreme Being in which there appears such a violation of concord. To this it has been replied that Moses uses the plural noun to express in a magnificent way the majesty of God, just as it is customary for kings and earthly potentates, when publishing edicts and laws, to call themselves *we* and *us*. But there is no evidence on record that such a mode of speaking was introduced among kings at a period so early as the era of Moses. Let it be observed, too, that whenever this phraseology was introduced among men, the plural noun was in every grammatical tongue joined to a plural verb; whereas Moses not only puts the noun and the verb in different numbers in the verse under consideration, but afterwards represents the *אלהים* as saying, 'let *us* make man in *our* image;' and, 'behold the man is become as *one* of *us*.' Such phrases as these last were never used by a single man, and therefore cannot have been borrowed from human idioms.

It will not be here contended, that the word *אלהים* indicates a plurality of gods. In the opinion, however, of many eminent divines, it denotes, by its junction with the singular verb, a plurality of persons in the one Godhead; and some few have contended that, by means of this peculiar construction, the Christian doctrine of the Trinity may be proved from the first chapter of the book of Genesis. To this latter opinion we can by no means give our assent. That there are three distinct persons in the one divine nature may be inferred with sufficient evidence, from a multitude of passages in the Old and New Testaments diligently compared together; but it would be rash to rest the proof of so sublime a mystery upon any single text of Holy Scripture, and would certainly be so to rest it upon the text in question. That Moses was acquainted with this doctrine, we, to whom it has been explicitly revealed, may reasonably conclude from his so frequently making a plural name of God to agree with a verb in the singular number: but, had we not possessed the brighter light of the New Testament to guide us, we should never have thought of drawing such an inference. For supposing the word *אלהים* to denote clearly a plurality of persons, and that it cannot possibly signify any thing else, how could we have known that the number is neither more nor less than three, had it not been ascertained to us by subsequent revelations?

There are indeed various passages in the Old Testament of the phraseology of which no rational account can be given, but that they indicate more than one person in the Godhead. Such are those texts already noticed; 'and the Lord God said, let us make man in our image after our

likeness;' and 'the Lord God said, behold the man is become like one of us.' To these may be added the following, which are to us perfectly unintelligible upon any other supposition; 'and the Lord God said, let us go down, and there confound their language.' 'If I be a master (in the Hebrew *adonim*, masters), where is my fear? 'The fear of the Lord (Jehovah) is the beginning of wisdom, and the knowledge of the Holy (in the Hebrew *holy ones*) is understanding.' 'Remember thy Creator (Hebrew *thy Creators*) in the days of thy youth.' 'And now the Lord God and his spirit hath sent me.' 'Seek ye out of the book of the Lord and read; for my mouth it hath commanded, and his spirit it hath gathered them.' That these texts imply a plurality of divine persons seems to us incontrovertible.

But how, it will be asked, can three divine persons be but one and the same God? This is a question which has been often put, but which, we believe, no created being can fully answer. The divine nature and its manner of existence is to us wholly incomprehensible; and we might with greater reason attempt to weigh the mountains in a pair of scales, than by our limited faculties to fathom the depths of infinity. The Supreme Being is present in power to every portion of space, and yet it is demonstrable that in his essence he is not extended. Both these truths, his inextention and omnipresence, are fundamental principles in what is called natural religion; and when taken together they form, in the opinion of most people, a mystery as incomprehensible as that of the Trinity in unity. Indeed there is nothing of which it is more difficult for us to form a distinct notion than unity simple, and absolutely indivisible; and we are persuaded that such of our readers as have been accustomed to turn their thoughts inwards, and reflect upon the operations of their own minds, will acknowledge the difficulty is not much less to them. Though the Trinity in unity, therefore, were no Christian doctrine, mysteries must still be believed; for they are as inseparable from the religion of nature as from that of revelation; and atheism involves the most incomprehensible of all mysteries, even the beginning of existence without a cause. We must indeed form the best notions that we can of this and of all other mysteries; for, if we have no notions whatever of a Trinity in unity, we can neither believe nor disbelieve that doctrine. It is, however, to be remembered, that all our notions of God are more or less analogical; that they must be expressed in words which, literally interpreted, are applicable only to man; and that propositions understood in this literal sense may involve an apparent contradiction, from which the truth meant to be expressed by them would be seen to be free, had we direct and adequate conceptions of the divine nature. On this account it is to be wished that men treating of the mystery of the holy Trinity had always expressed themselves in Scripture language, and never aimed at being wise beyond what is written. In the Scriptures the three persons are denominated by the terms Father, Son, and Holy Ghost, or by God, the Word who is also declared to be God, and the Spirit of God. If each be truly



God, it is obvious that they must all have the same divine nature, just as every man has the same human nature with every other man; and, if there be but one God, it is equally obvious that they must be of the same individual substance or essence, which no three men can possibly be. In this there is a difficulty; but, as will be seen by and by, there is no contradiction. The very terms Father and Son imply such a relation between the two persons so denominated as that though they are of the same substance, possessed of the same attributes, and equally God, just as a human father and his son are equally men, yet the second must be personally subordinate to the first. In like manner, the Holy Ghost, who is called the Spirit of God, and is said to proceed from the Father, and to be sent by the Son, must be conceived as subordinate to both, much in the same way as a son is subordinate to his parents, though possessed of equal or even of superior powers. That this is the true doctrine appears to us undeniable from the words of our Saviour himself, who, in a prayer addressed to his Father, styles him, by way of pre-eminence, 'the only true God,' as being the fountain or origin of the Godhead from which the Son and the Holy Ghost derive their true divinity. In like manner St. Paul, when opposing the polytheism of the Greeks, says expressly, that 'to us there is but one God, the Father, of whom all things, and we in, or for, him; and one Lord Jesus Christ, by whom are all things, and we by him.'

A comparison has been made use of to enable us to form some notion, however inadequate, how three divine persons can subsist in the same substance, and thereby constitute but one God. Moses informs us that man was made after the image of God. That this relates to the soul more than to the body of man has been granted by all but a few gross anthropomorphites; but it has been well observed that the soul, though in itself one indivisible and unextended substance, is conceived as consisting of three principal faculties, the understanding, the memory, and the will. Of these, though they are all coeval in time, and equally essential to a rational soul, the understanding is in the order of nature obviously the first, and the memory the second; for things must be perceived before they can be remembered; and they must be remembered and compared together before they can excite volition, from being, some agreeable, and others disagreeable. The memory, therefore, may be said to spring from the understanding, and the will from both; and as these three faculties are conceived to constitute one soul, so may three divine persons, partaking of the same individual nature or essence, constitute one God. These parallels or analogies are by no means brought forward as proofs of the Trinity, of which the evidence is to be gathered wholly from the word of God; but they may serve perhaps to help our laboring minds to form the justest notions of that adorable mystery which it is possible for us to form in the present state of our existence; and they seem to rescue the doctrine sufficiently from the charge of contradiction, which has been so often urged against it by Unitarian writers. To the last ana-

logy we are aware it has often been objected that the soul may as well be said to consist of ten or twenty faculties as of three, since the passions are equally essential to it with the understanding, the memory, and the will, and are as different from one another as these three faculties are. This, however, is probably a mistake; for the best philosophy seems to teach us that the passions are not innate; that a man might exist through a long life a stranger to many of them; and that there are probably no two minds in which are generated all the passions; but understanding, memory, and will, are absolutely and equally necessary to every rational being.

To the doctrine of the Trinity many objections have been made, as it implies the divinity of the Son and the Holy Ghost; of whom the former assumed our nature, and in it died for the redemption of man. These we shall notice when we come to examine the revelations more peculiarly Christian; but there is one objection which, as it respects the doctrine in general, may be properly noticed here. It is said that the first Christians borrowed the notion of a Triune God from the later Platonists; and that we hear not of a Trinity in the church till converts were made from the school of Alexandria. But if this be the case we may properly ask whence had those Platonists the doctrine themselves? It is not surely so simple or so obvious as to be likely to have occurred to the reasoning mind of a Pagan philosopher; or, if it be, why do Unitarians suppose it to involve a contradiction? The Platonist and Pythagorean Trinities never could have occurred to the mind of him who, merely from the works of Creation, endeavoured to discover the being and attributes of the Creator; and therefore, as those philosophers travelled into Egypt and the East in quest of knowledge, it appears to us in the highest degree probable that they picked up this mysterious and sublime doctrine in those regions where it had been handed down as a dogma from the remotest ages, and where we know that science was not taught systematically, but detailed in collections of sententious maxims and traditionary opinions. If this be so, we cannot doubt but that the Pagan Trinities had their origin in some primeval revelation. Nothing else, indeed, can account for the general prevalence of a doctrine so remote from human imagination, and of which we find vestiges in the sacred books of almost every civilised people of antiquity. The corrupt state in which it is viewed in the writings of Plato and others is the natural consequence of its descent through a long course of oral tradition; and then falling into the hands of men who bent every opinion as much as possible to a conformity with their own speculations. The Trinity of Platonism therefore, instead of being an objection, lends, in our opinion, no feeble support to the Christian doctrine, since it affords almost a complete proof of that doctrine's having made part of the first revelations communicated to man.

As the one God to whom Moses gives the plural name Elohim thus comprehends three persons; let us enquire what power this Triune God exerted, when, as the same sacred writer informs us, he created the heavens and the earth.



That by the heaven and the earth is here meant the whole universe, visible and invisible, is known to every person acquainted with the phraseology of Scripture; and we need inform no man conversant with English writers that by creation, in its proper sense, is meant bringing into being, or making that to exist which existed not before. It must, however, be acknowledged, that the Hebrew word **בָּרָא** does not always imply the production of substance, but very often the forming of particular organised bodies out of pre-existing matter. Thus when it is said that 'God created great whales, and every living creature that moveth, which the waters brought forth abundantly after their kind,' and again, that 'he created man male and female;' though the word **בָּרָא** is used on both occasions, we are not to conceive that the bodies of the first human pair, and of these animals, were brought into being from nonentity, but only that they were formed by a proper organization being given to pre-existent matter. But when Moses says, 'In the beginning God created the heaven and the earth,' he cannot be supposed to mean that 'in the beginning God only gave form to matter already existing of itself;' for in the very next verse we are assured that, after this act of creation was over, 'the earth was still without form, and void;' or, in other words, in a chaotic state.

It does not, however, follow from this verse, or from any other passage in the sacred Scriptures, that the whole universe was called into existence at the same instant; neither is it by any means evident that the chaos of our world was brought into being on the first of those six days during which it was gradually reduced into form. From a passage in the book of Job, in which we are told by God himself that when the 'foundation of the earth was laid, the morning stars sang together, and all the sons of God shouted for joy,' it appears extremely probable that worlds had been created, formed, and inhabited, long before our earth had any existence. Nor is this opinion at all contrary to what Moses says of the creation of the stars; for, though they are mentioned in the same verse with the sun and moon, yet the manner in which, according to the original, they are introduced, by no means indicates that all the stars were formed at the same time with the luminaries of our system. Most of them may have been created long before, and some of them since our world was brought into being; for that clause (verse 16) 'he made the stars also,' is in the Hebrew no more than 'and the stars;' the words he made being inserted by the translators. The whole verse, therefore, ought to be rendered thus:—'And God made two great lights; the greater light to rule the day, and the lesser light with the stars to rule the night;' where nothing is intimated with respect to the time when the stars were formed, any more than in that verse of the Psalms (cxxxvi. 9) which exhorts us to give thanks to God, who made the moon and stars to rule by night; for his mercy endureth 'for ever.' The first verse of the book of Genesis informs us that all things spiritual and corporeal derive their existence from God; but it is no where said that all matter was created at the same time; and the

generations of men afford sufficient evidence of a successive and continual creation of spirits.

That the whole corporeal universe may have been created at once must be granted; but, if so, we have reason to believe that this earth, with the sun and all the planets of the system, were suffered to remain for ages in a state of chaos, 'without form, and void;' because it appears from other Scriptures that worlds of intelligent creatures existed, and even that some angels had fallen from a state of happiness, prior to the era of the Mosaic cosmogony. That the sun and the other planets revolving round him were formed at the same time with the earth cannot indeed be questioned; for it is not only extremely probable in itself from the known laws of nature, but is expressly affirmed by the sacred historian, who relates the formation of the sun and moon in the order in which it took place. Into the particulars of his narrative we have no occasion to enter.

How strongly do the works of creation impress upon our minds a conviction of the infinite power and wisdom of their Author! This was so apparent to Cicero, even from the partial and very imperfect knowledge in astronomy which his time afforded, that he declared those who could assert the contrary void of all understanding. But if that great master of reason had been acquainted with the modern discoveries in astronomy, which exhibit numberless worlds scattered through space, and each of immense magnitude; had he known that the sun is placed in the centre of our system, and that, to diversify the seasons, the planets move round him with exquisite regularity; could he have conceived that the distinction between light and darkness is produced by the diurnal rotation of the earth on its own axis, instead of that disproportionate whirling of the whole heavens which the ancient astronomers were forced to suppose; have he known of the wonderful motions of the comets, and considered how such eccentric bodies had been preserved from falling upon some of the planets in the same system, and the several systems from falling upon each other; had he taken into the account that there are yet greater things than these, and 'that we have seen but a few of God's works;'—that virtuous Pagan would have been ready to exclaim, in the words of the Psalmist, 'O Lord, how manifold are thy works! In wisdom hast thou made them all; the earth is full of thy riches.' That creation is the offspring of unmixed goodness has been already shown; and, from the vast number of creatures on our earth endowed with life and sense, and a capability of happiness, and the infinitely greater number which probably inhabit the planets of this and other systems, we may infer that the goodness of God is as boundless as his power. Surely the author of so much happiness must be essential goodness; and we must conclude with St. John that 'God is love.'

These attributes of power, wisdom, and goodness, so conspicuously displayed in the works of creation, belong in the same supreme degree to each person in the blessed Trinity; for Moses declares that the heaven and the earth were created, not by one person, but by the Elohim. The

λογος, indeed, or second person, appears to have been the immediate Creator; for St. John assures us that 'all things were made by him, and that without him was not any thing made that was made.' St. Paul expressly affirms that by the second person in the blessed Trinity 'were all things created that are in the heaven, and that are in earth, visible and invisible, whether they be thrones, or dominions, or principalities, or powers: all things were created by him and for him; and he is before all things, and by him all things consist.'—Coloss. iv. 17. Indeed the Hebrew Scriptures, in more places than one, expressly declare that this earth, and of course the whole solar system, was formed as well as created, not by any inferior being, but by the true God, even Jehovah alone. See Isa. xl. 12, xlv. 24; Jer. x. 10—13. But, though it be thus evident that the λογος was the immediate creator of the universe, we are not to suppose that it was without the concurrence of the other two persons. The Father, who may be said to be the fountain of the Divinity itself, was certainly concerned in the creation of the world, and is therefore in the Apostle's Creed denominated 'the Father Almighty, maker of heaven and earth;' and that the Holy Ghost, or third person, is likewise a Creator, we have the express testimony of two inspired writers. 'By the word of the Lord,' says the Psalmist, 'were the heavens made, and all the host of them by the breath (Hebrew, spirit) of his mouth.' And Job declares that the 'Spirit of God made him, and that the breath of the Almighty gave him life.' Indeed these three divine persons are so intimately united that what is done by one must be done by all, as they have but one and the same will.

### SECT. III.—OF THE ORIGINAL STATE OF MAN.

We proceed to enquire into the specific nature of the first man. This must be implied in the image of God. Now this image or likeness could not be in his body; for the infinite and omnipotent God is without body, parts, or passions, and therefore such as nothing corporeal can resemble. Some have contended that man is the only creature on this earth who is animated by a principle essentially different from matter; and hence he is said to have been formed in the divine image, on account of the immateriality of that vital principle which was infused into his body when the 'Lord God breathed into his nostrils the breath of life, and man became a living soul.' That this account of the animation of the body of man indicates a superiority of the human soul to the vital principle of all other animals, cannot, we think, be questioned; but, as the word immaterial denotes only a negative notion, the souls of men and brutes, though both immaterial, may yet be substances essentially different. This being the case, it is plain that the divine image in which man was formed, and by which he is distinguished from the brutes, cannot consist in the mere circumstance of his mind being a substance different from matter, but in some positive quality which distinguishes him from every other creature on this globe.

About this characteristic quality various opinions have been formed. Some have supposed

that the image of God in Adam appeared in that rectitude, righteousness, and holiness, in which he was made, which were perfect; his understanding was free from all error; his will biassed to that which is good. And this righteousness, say they, was natural, and created with him. They, therefore, call it original righteousness. To this doctrine many objections have been made; because nothing which is produced in a man without his knowledge and consent can be in him either virtue or vice. Adam was unquestionably placed in a state of trial, which proves that he had righteous habits to acquire; but perfect righteousness is inconsistent with a state of trial. That Adam was not so is plain, as he yielded to the first temptation with which he was assailed.

Since man was made in the image of God, that phrase, whatever be its precise import, must denote something peculiar, and at the same time essential to human nature; but the only quality at once natural and peculiar to man is his reason. It has therefore been concluded that it was the faculty of reason which made the resemblance. To give strength to this argument it is observed that when God says, 'Let us make man in our image,' he immediately adds, 'and let them have dominion over the fish of the sea, and over the fowl of the air, and over the cattle, and over all the earth;' but as many of the cattle have much greater bodily strength than man, this dominion could not have been maintained but by the faculty of reason bestowed upon him and withheld from them. Yet it would be little short of idolatry to imagine that God is obliged to compare ideas and notions together; to advance from particular truths to general propositions; and to acquire knowledge, as we do, by the tedious processes of inductive and syllogistic reasoning. There can therefore be no direct image of God either in the soul or in the body of man; and the phrase seems to import nothing more than those powers or qualities by which man was fitted to exercise dominion over the inferior creation; as if it had been said, 'Let us make man in our image, after our likeness, that they may have dominion,' &c.

That the first man, however, was not left to discover religious truth by the mere efforts of his unassisted reason we think is clear. The inspired historian says that 'God blessed the seventh day and sanctified it, because that in it he had rested from all his works which he created and made;' but Adam could not have understood what was meant by the sanctification of a particular day, or of any thing else, unless he had previously received some religious instruction. There cannot therefore be a doubt but that, as soon as man was made, his Creator communicated to him the truths of what is called natural religion, and to these were added the precept to keep holy the sabbath, or set it apart for the purposes of contemplation and worship.

Man, therefore, in his natural and original state was a rational and religious being, bound to do 'justice, to love mercy, to walk humbly with his God, and to keep holy the Sabbath day.' These seem to be all the duties which in that state were required of him; for as soon as he was introduced into the terrestrial paradise, and ad



mitted into covenant with his Maker, he was placed in a state in which other duties were enjoined.

Moses, who in this investigation is our only guide, tells us that the Lord God, after he had formed the first pair, 'planted a garden eastward in Eden, and took the man and put him into the garden to dress it and to keep it. And the Lord God,' continues he, 'commanded the man, saying, of every tree of the garden thou mayest freely eat; but of the tree of the knowledge of good and evil thou shalt not eat of it; for in the day that thou eatest thereof thou shalt surely die.' The only law peculiar to his paradisaical state was the command not to eat of the fruit of the tree of the knowledge of good and evil. This was a positive precept, not founded in the nature of man, but very proper to be the test of his obedience to the will of his Creator. This was sanctioned by the penalty of death denounced against disobedience; and the subjects of that law must have understood somewhat of the nature of this penalty; but Christian divines have differed widely in opinion respecting the full import of the Hebrew words which our translators have rendered by the phrase 'thou shalt surely die.' All however agree that they threatened death, in the common acceptation of the word, or the separation of the soul and body, as one part of the punishment to be incurred by eating the forbidden fruit; and hence we must infer that, had the forbidden fruit not been eaten, our first parents would never have died, because the penalty of death was denounced against no other transgression. What therefore is said respecting the fruit of the tree of knowledge, implies not only a law, but also, as it has been termed, a covenant, promising to man, upon the observance of one positive precept, immortality or eternal life; which is not essential to the nature of any created being, and cannot be claimed as the merited reward of the greatest virtue, or the most fervent piety.

This will enable us to dispose of the objections which have been sometimes brought by free-thinking divines against the wisdom and justice of punishing so severely as by death, a breach of a mere positive precept; which, considered in itself, or as connected with the general principles of moral obligation, appears to be of little importance. We have only to reply that, as an exemption from death is not due either to the nature or to the virtue of man, it was wise and just to make it depend upon the observance of a positive precept, to impress upon the minds of our first parents a constant conviction that they were to be preserved immortal, not in the ordinary course of divine providence, but by the special grace and favor of God. The same consideration will show us the folly of those men who, because the terms of the first covenant, as stated in some systems of theology, agree not with certain philosophical maxims which they have adopted, are for turning all that is said of the trees of knowledge and of life into figure and allegory. But the other trees which Adam and Eve were permitted to eat were certainly real trees, or they must have perished for want of food. And what rules of interpretation will

authorise us to interpret eating and trees literally in one part of the sentence and figuratively in the other? A garden in a delightful climate is the habitation, and the fruits produced in that garden the food, prepared for the progenitors of the human race; and though in the garden actually fitted up for this purpose two trees were remarkably distinguished from the rest, perhaps in situation and appearance as well as in use, the distinction was calculated to serve the best of purposes. The one, called the tree of life, of which, while they continued innocent, they were permitted to eat, served as a sacramental pledge or assurance on the part of God, that as long as they should observe the terms of the covenant their life should be preserved; the other, of which it was death to taste, was admirably adapted to impress upon their minds the necessity of implicit obedience to the Divine will, in whatever manner it might be made known to them.

#### SECT. IV.—OF THE FALL OF ADAM AND ITS CONSEQUENCES.

From the preceding account of the primeval state of man, it is evident that his continuance in the terrestrial paradise, together with all the privileges which he there enjoyed, were made to depend upon his observance of one positive precept. No other duty was incumbent on him, except perhaps to keep the Sabbath, then first instituted. The punishment was denounced only against eating the fruit of the tree of the knowledge of good and evil. To the word death in that passage divines have affixed many different meanings which we need not enumerate, most of them being very absurd, and the meaning of the word is sufficiently obvious. In any acceptation of the word, it denoted something new to Adam, which he could not understand without an explanation of the term; and therefore it was threatened as the punishment of the only transgression he could commit.

The abstaining from a particular fruit in the midst of a garden abounding with fruits of all kinds was a precept which at first view appears of easy observation; and the penalty threatened against the breach of it was, in every sense, awful. The precept, however, was broken notwithstanding that penalty; whereupon the historian tells us that, 'lest they should put forth their hand and take also of the tree of life, and eat, and live for ever, the Lord God sent them forth from the garden of Eden, to till the ground whence they were taken.' Their minds must now have been burdened with the inward sense of guilt, and they must have dreaded the threatened death; of which, however, they had probably no idea.

God, however, did not send them forth thus hopeless and forlorn from the paradise of delights which they had so recently forfeited. He determined to punish them for their transgression, but at the same time to give them hopes of recovering more than their lost inheritance. Calling therefore the various offenders before him, and enquiring into their different degrees of guilt, he began with pronouncing judgment on the serpent, in terms which implied that there was still mercy for man. Yet the serpent was

only the instrument of the temptation. We are told that, when the foundations of the earth were laid, the morning stars sang together, and all the sons of God shouted for joy; and it is at least probable that there would be similar rejoicing when the six days work of creation was finished. If so, Adam and Eve, who were but a little lower than the angels, might be admitted into the chorus, and thus be made acquainted with the existence of good and evil spirits. At all events, their gracious and merciful Creator would inform them that they had a more powerful enemy than a brute; that he was a rebellious angel, capable of deceiving them in many ways; and that they ought therefore to be constantly on their guard against his wiles. They must have known too that they were themselves animated by something different from matter; and, when they found they were deceived by the serpent, they might surely, without any remarkable stretch of sagacity, infer that their malignant enemy had actuated the organs of that creature in a manner somewhat similar to that in which their own souls actuated their own bodies. If this be admitted, the degradation of the serpent would convince them of the weakness of the tempter when compared with their Creator; and confirm their hopes, that since he was not able to preserve unhurt his own instrument of mischief, he should not be able finally to prevail against them.

Having thus punished the original instigator to evil, the Almighty Judge turned to the fallen pair, and said to the woman, 'I will greatly multiply thy sorrow; in sorrow shalt thou bring forth children; and thy desire shall be to thy husband, and he shall rule over thee.' And unto Adam he said, 'Because thou hast hearkened unto the voice of thy wife, and hast eaten of the tree of which I commanded thee, saying, thou shalt not eat of it; cursed is the ground for thy sake; in sorrow shalt thou eat of it all the days of thy life. Thorns also and thistles shall it bring forth unto thee, and thou shalt eat the herb of the field. In the sweat of thy face shalt thou eat bread till thou return unto the ground; for out of it wast thou taken, for dust thou art, and unto dust shalt thou return.'

Here is a terrible denunciation of toil and misery and death upon our first parents, which has since been continued in a greater or less degree upon all their posterity. But they were not left without hope of restoration to some better state. Had they been furnished with no ground of hope beyond the grave, we cannot believe that the Righteous Judge of all the earth would have added to the penalty originally threatened. That penalty they would doubtless have incurred the very day on which they fell; but, as they were promised a deliverance from the consequences of their fall, it was proper to train them up by severe discipline for the happiness reserved for them in a future state.

They were now conscious of guilt; doomed to severe labor; liable to sorrow and sickness, disease and death; miseries which they had brought, not only upon themselves, but also, as we learn from different passages of the New Testament, upon their unborn posterity to the

end of time. Such is the brief but melancholy account given by Moses, the earliest and most authentic of historians, of that fatal event, which first

Brought death into the world, and all our woe.

Death was certainly introduced by the fall; for the inspired apostle assures us, that in Adam all die; and, again, that through the offence of one, many are dead. Many contend that it includes death corporeal, spiritual or moral, and eternal; and that all mankind are subjected to these three kinds of death, on account of their share in the guilt of the original transgression, which is usually denominated original sin, and considered as the source of all moral evil.

That all men are subjected to death corporeal, in consequence of Adam's transgression, is universally admitted; but that they are in any sense partakers of his guilt, and on that account subjected to death spiritual and eternal, has been very strenuously denied. But it would extend this article beyond all due limits to enter into this controversy. Some few divines of this school are indeed of opinion that the phrase, 'By one man's disobedience many were made sinners,' means nothing more than that the posterity of Adam, through his sin, derive from him a corrupt nature. But, though this be admitted, the more zealous abettors of the system contend that it is not the whole truth. It is true (say they) that all men are made of one man's blood, and that blood is tainted with sin; and so a clean thing cannot be brought out of an unclean. What is born of the flesh is flesh, carnal and corrupt; every man is conceived in sin, and shapen in iniquity; but then there is a difference between being made sinners and becoming sinful. The one respects the guilt, the other the pollution of our nature; the one is previous to the other, and the foundation of it. Men receive a corrupt nature from their immediate parent; but they are made sinners, not by any act of their disobedience, but only by the imputation of the sin of Adam.

Such are the consequences of Adam's fall, and such the doctrine of original sin, as maintained by the more rigid followers of Calvin. That great reformer, however, was not the author of this doctrine. It had been taught so early as in the beginning of the fifth century, by St. Augustine, the celebrated bishop of Hippo, see AUGUSTINE, and the authority of that father had made it more or less prevalent in both the Greek and Roman churches long before the Reformation. Calvin was indeed the most eminent modern divine by whom it has been held in all its rigor; and it constitutes one great part of that theological system, which, from being taught by him, is now known by the name of Calvinism. Those by whom it is embraced maintain it with zeal, as in their opinion forming, together with the other tenets of their master, the only pure system of evangelical truths; but it hath met with much opposition in some of the Lutheran churches, as well as from private divines in the church of England, and from the great body of Dutch remonstrants. See CALVINISM, ARMINIANS, and SYNOD OF DORT.



SECT. V.—HISTORICAL VIEW OF THEOLOGY  
FROM THE FALL OF ADAM TO THE COMING OF  
CHRIST.

The events treated of in the last section paved the way for the coming of Christ, and the preaching of the gospel; and, unless we thoroughly understand the origin of the gospel, we cannot have an adequate conception of its design. By contrasting the first with the second Adam, St. Paul gives us clearly to understand the great purpose for which Christ came into the world and suffered death upon the cross. The preaching of the gospel, therefore, commenced with the first hint of such a restoration; and the promise given to Adam and Eve, that 'the seed of the woman should bruise the head of the serpent,' was as truly evangelical as these words of the apostle, by which we are taught that 'this is a faithful saying, and worthy of all acceptation, that Christ Jesus came into the world to save sinners.' 1 Tim. i. 15. The former text, taken by itself, is indeed obscure, and the latter is explicit; but both belong to the same system, for the Scriptures contain but two covenants or dispensations of God to man, in which the whole ace is included.

Christianity, therefore, is indeed very near as old as the creation; but its principles were at first obscurely revealed, and afterwards gradually developed under different forms, as mankind became able to receive them. All that appears to have been at first revealed to Adam and Eve was, that by some means or other one of their posterity should in time redeem the whole race from the curse of the fall; or, if they had a distinct view of the means by which that redemption was to be wrought, it was probably communicated to them at the institution of sacrifices. This promise of a future deliverer served to comfort them under their heavy sentence; and the institution of sacrifices, whilst it impressed upon their minds lively ideas of the punishment due to their transgression, was admirably calculated to prepare both them and their posterity for the great atonement which, in due time, was to take away the sins of the world.

After the fall, God was graciously pleased to manifest himself to the senses of our first parents, and visibly to conduct them by the angel of his presence in all the rites and duties of religion. This is evident from the different discourses which he held with Cain, as well as from the complaint of that murderer of being hid from his face, and from its being said that 'he went out from the presence of the Lord, and dwelt on the east of Eden.' Nor does it appear that God wholly withdrew his visible presence, and left mankind to their own inventions, till their wickedness became so very great that his spirit could no longer strive with them. Adam continued 930 years a living monument of the justice and mercy of God; of his extreme hatred and abhorrence of sin, as well as of his love and long-suffering towards the sinner. He was very sensible how sin had entered into the world, and he could not but apprise his children of its author. He would at the same time inform them of the unity of God, and his dominion over the evil one; of the means by which he had appointed

himself to be worshipped; and of his promise of future deliverance from the curse of the fall. Such information would produce a tolerable idea of the Divine Being, and afford sufficient motives to obey his will. The effects of it, accordingly, were apparent in the righteous family of Seth, who soon distinguished themselves from the posterity of Cain, and for their eminent piety were honored with the appellation of the sons of God. Of this family sprang a person so remarkable for virtue and devotion as to be exempted from Adam's sentence and the common lot of his sons; for after he had walked with God 300 years, and prophecied to his brethren, he was translated, that he should not see death. Or this miraculous event there can be no doubt but that his contemporaries had some visible demonstration; and, as the fate of Abel was an argument to their reason, so the translation of Enoch was a proof to their senses of another state of life after the present. See ENOCH.

Notwithstanding this watchful care of God over his fallen creature man, vice, and probably idolatry, spread through the world with a rapid pace. The family of Seth married into that of Cain, and adopted the manners of their new relations. Rapine and violence, unbounded lust and impurity of every kind, prevailed universally: and when those giants in wickedness had filled the earth with tyranny, injustice, and oppression—when the whole race was become entirely carnal—God, after raising up another prophet to give them frequent warnings of their fate for the space of 120 years, was at length obliged, in mercy to themselves, as well as to the succeeding generations of men, to cut them off by a general deluge. See DELUGE.

The sons of Noah were 100 years old when the deluge overwhelmed the earth. They had long conversed with their ancestors of the old world, had frequented the religious assemblies, observed the Sabbath-day, and been instructed by those who had seen Adam. It is therefore impossible that they could be ignorant of the creation of the world, of the fall of man, or of the promise of future deliverance from the consequences of that fall; or that they could offer their sacrifices, and perform the other rites of the instituted worship, without looking forward with the eye of faith to that deliverance seen, perhaps obscurely, through their typical oblations.

In this state of things, with the awful remembrance of the deluge continually present to their minds, religion might for some time be safely propagated by tradition. But when by degrees mankind corrupted that tradition in its most essential parts; when, instead of the one Supreme God, they set up several orders of inferior deities, and worshipped all the host of heaven; when, at the same time, they were uniting under one head, and forming a universal empire under the patronage of the sun, their chief divinity, God saw it necessary to disperse them into distinct colonies, by causing such discord among them as rendered it impossible for any one species of idolatry to be at once universally established.

After this dispersion, there is reason to believe that particular revelations were vouchsafed

wherever men were disposed to regard them. Peleg had his name prophetically given him from the dispersion which was to happen in his days; and not only his father Heber, but all the heads of families mentioned from Noah to Abraham, are with much plausibility supposed to have had the spirit of prophecy on many occasions. Noah was undoubtedly both priest and prophet; and, living till within two years of the birth of Abraham, or, according to others, till that patriarch was nearly sixty years old, he would surely be able to keep up a tolerable sense of true religion among such of his descendants as sojourned within the influence of his doctrine and example. His religious son Shem, who lived till after the birth of Isaac, could not but preserve in tolerable purity the faith and worship of the true God among his descendants.

But, though the remains of true religion were thus preserved, God in his infinite wisdom, saw it expedient not only to shorten the lives of men, but also to withdraw his presence from the generality, who had rendered themselves unworthy of such communications; and to select a particular family, in which his worship might be preserved pure amidst the various corruptions that were spreading the world. With this view Abraham was called.

Accordingly we find him distinguished among the neighbouring princes, and kings reproved for his sake; who, being made acquainted with his prophetic character, desired his intercession with God. History tells us of his conversing on the subject of religion with the most learned Egyptians, who appear to have derived from him or some of his descendants the rite of circumcision, and to have been for a while stopt in their progress towards the last stage of that degrading idolatry which afterwards rendered their national worship the opprobrium of the whole earth. See MYTHOLOGY and POLYTHEISM. We are informed that his name was held in the greatest veneration all over the east; that the Magians, Sabians, Persians, and Indians, all gloried in him as the great reformer of their respective religions: and it appears extremely probable that not only the Brachmans, but likewise the Hindoo god Brahma, derived their names from the father of the faithful.

The worship of the patriarchs seems to have consisted chiefly of the three kinds of sacrifice (see SACRIFICE); to which were doubtless added prayers and praises. Such of them as looked forward to a future redemption, and had any tolerable notion of the means by which it was to be effected, as Abraham certainly had, must have been sensible that the blood of bulls and of goats could never take away sin, and that their sacrifices were therefore valuable only when they were offered in faith of that great promise, 'which they, having seen it afar off, believed, and were persuaded of it; and confessed that they were strangers and pilgrims upon earth.' That such persons looked for a 'better country, even a heavenly one,' in a future state, is highly probable; though the precise measure of their knowledge we can only conjecture. They believed in a future Redeemer according to the promise. The patriarchal worship had the same end in view

with the Christian—the attainment of everlasting life in heaven, although the generality of men appear not, in the early age of which we now write, to have extended their views beyond the present life.

It is a fact ascertained by profane history, as well as sacred, that the Israelites were once slaves in Egypt, and that they at last got free. Now it has been justly remarked that considering the great power of the Egyptian monarch, their having obtained their liberty in any other way than in the manner recorded by Moses, would have been a greater miracle than all the ten he records. Upon these ten miraculous exertions of the divine power it has also been justly remarked, that most of them were such as to militate directly against the idolatry of Egypt. The two first of them were exerted upon their great god, the river Nile, whose waters were turned into blood, and made to produce noxious swarms of frogs. The murrain upon the cattle was also a visible judgment upon their absurd idolatry and brute worship; for these cattle were among their chief deities. See APIS. The fly, which became a plague, was a god of the Phœnicians; and the extraordinary thick darkness effectually put to defiance the power of the chief god of Egypt, Osiris, whom they adored as the sun, the fountain of light. But the swarm of lice struck even Pharaoh's magicians themselves with such astonishment that they acknowledged it to be a work of the Almighty.

The God of Israel having thus magnified himself over the Egyptians and their gods, and rescued his people from bondage by such means as must not only have struck terror and astonishment into the whole land, but also have spread his name through all the countries which had any communication with that far-famed nation, proceeded to instruct and exercise the Hebrews, for many years in the wilderness; inculcated upon them the unity of the Godhead; gave them statutes and judgments more righteous than those of any other nation; and, by every method consistent with the freedom of moral agency, guarded them against the contagion of idolatry and polytheism.

The Jewish law had two great objects in view; of which the first was to preserve among them the knowledge of the true God, a rational worship springing from that knowledge, and the regular practice of moral virtue; and the second was to fit them for receiving the accomplishment of the great promise made to their ancestors. When the true God first tells them, by their leader Moses, that if they would obey his voice indeed, and keep his covenant, then they should be a peculiar treasure to him above all people: to prevent them from supposing that he shared the earth with the idols of the heathen, and had from partial fondness chosen them for his portion, he immediately adds 'for all the earth is mine.' By this addition he gave them plainly to understand that they were chosen to be his peculiar treasure for some purpose of general importance; and the very first article of the covenant which they were to keep was, that they should have no other gods but Him. The Almighty thus becoming their king, the govern-



ment of the Israelites was properly a theocracy, in which the two societies, civil and religious, were of course incorporated. They had indeed after their settlement in the promised land at first several temporary judges occasionally raised up; and afterwards permanent magistrates, called kings, to lead their armies in war, and to give vigor to the administration of justice in peace: but neither those judges nor kings could abrogate a single law of the original code, or make the smallest addition to it but by the spirit of prophecy. They cannot therefore be considered as supreme magistrates, by whatever title they governed; for they were to go out and come in at the word of the priests, who were to ask counsel for them of the Lord, and with whom they were even associated in all judicial proceedings, as well of a civil as of a spiritual nature. Under any other than a theocratic government the Hebrews could not have been kept separate from the nations around them; or, if they could, that separation would not have answered the great purpose for which it was established. Hence it was that, under the Mosaic dispensation, idolatry was a crime of state, punishable by the civil magistrate. No mere human authority could have lawfully established it.

It was for the same purpose of guarding them against idolatry, and preventing all undue communications with their heathen neighbours, that the ritual law was given. After their repeated apostacies, and impious wishes to mix with the surrounding nations, it was necessary to subject them to a multifarious ritual, of which the ceremonial parts were solemn and splendid, fitted to engage and fix the attention of a people whose hearts were gross; to inspire them with awful reverence, and to withdraw their affections from the pomp and pageantry of those idle superstitions which they had so long witnessed in Egypt. To keep them warmly attached to their public worship, that worship was loaded with operose and magnificent rites, and so completely incorporated with their civil polity as to make the same things at once duties of religion and acts of state. The service of God was indeed so ordered as to be the constant business as well as entertainment of their lives, supplying the place of all other entertainments; and the sacrifices which they were commanded to offer on the most solemn occasions were of such animals as the Egyptians and other heathens deemed sacred.

Few precepts in the Jewish law are more frequently repeated than that which prohibits the seething of a kid in its mother's milk; among the nations round Judea, the feasting upon a kid boiled in its mother's milk was an essential part of the impious and magical ceremonies celebrated in honor of one of their gods, who was supposed to have been suckled by a she goat. Hence in the Samaritan Pentateuch, the text runs thus:—'Thou shalt not seeth a kid in its mother's milk; for whoever does so is as one who sacrifices an abominable thing, which offends the God of Jacob.' Another precept, apparently of very little importance, is given in these words:—'Ye shall not round the corners of your heads, neither shalt thou mar the corners of thy beard.'

But its wisdom is seen at once, when we know that at funerals it was the practice of many of the heathens, in that early period, to round the corners of their heads, and mar their beards, that by throwing the hairs they had cut off upon the dead body, or the funeral pile, they might propitiate the shade of the departed hero; and that in other nations, particularly in Phœnicia, it was customary to cut off all the hair of their heads except what grew upon the crown, which, with great solemnity, was consecrated either to the sun or to Saturn. The unlearned Christian, if he be a man of reflection, must read with some degree of wonder such laws as these:—'Thou shalt not sow thy vineyard with divers seeds, lest the fruit of thy seed which thou hast sown and the fruits of thy vineyard be defiled. Thou shalt not plow with an ox and an ass together. Thou shalt not wear a garment of divers sorts, or of woollen and linen together.' But his wonder will cease when he knows that all these were superstitious practices from which the Sabian idolaters of the east expected the greatest advantages. Their belief in magic and judicial astrology led them to imagine, that by sowing different kinds of corn among their vines they should propitiate the gods which were afterwards known in Rome by the names of Bacchus and Ceres; that, by yoking animals so heterogeneous as the ox and the ass in the same plough, they should by a charm secure the favor of the deities who presided over husbandry; and that a garment composed of linen and woollen, worn under certain conjunctions of the stars, would protect its owner, his flocks, his herds, and his field, from all malign influences, and render him in the highest degree prosperous through the whole course of his life. But magical ceremonies, of which the very essence seems to have consisted in uniting in one group, or jumble things never brought together by nature, were always performed to render propitious, good or evil demons (see MAGIC); and therefore such ceremonies, however unimportant in themselves, were in that age most wisely prohibited in the Mosaic law. If an accurate examination of the whole Jewish ritual be made in this manner, every precept of it will be found to be directed against some idolatrous practice of the age in which it was given.

That these laws might operate more powerfully on minds gross and carnal, they were all enforced by temporal sanctions. This was indeed the natural and even necessary consequence of the theocratic government established in Israel. Nor were temporal rewards and punishments held out only to the nation as a collective body; they were promised and threatened to every individual in his private capacity as the certain consequences of his obedience or disobedience. Every particular Hebrew was commanded to honor his father and mother, that it might go well with him, and that his days might be prolonged; whilst he who cursed his father or mother was sure to be put to death. Against every idolater, and even against the wilful transgressor of the ceremonial law, God repeatedly declared he would set his face, and would cut off that man from among his people.

From these peculiarities in the Jewish dispen-

sation, some divines have rashly concluded that the ancient Israelites had no hope whatever beyond the grave; and that in the whole Old Testament there is not a single intimation of a future state. In the earliest periods of their commonwealth, the Israelites could, indeed, only infer, from different passages of their sacred books, that there would be a general resurrection of the dead, and a future state of rewards and punishments; but, from the writings of the prophets, it appears that before the Babylonish captivity that doctrine must have been very generally received. See Job xix. 25. In the Psalms; and in the prophecies of Isaiah, Daniel, and Ezekiel, there are several texts which seem to prove incontrovertibly that, at the time when these inspired books were written, every Israelite who could read the Scriptures must have had some hopes of a resurrection from the dead. For example, Isaiah has these remarkable words:—‘Thy dead men shall live; together with my dead body shall they arise. Awake and sing, ye that dwell in the dust; for thy dew is as the dew of herbs, and the earth shall cast out the dead.’ These words are undoubtedly figurative, and were uttered to give the Israelites consolation in very disastrous times. It was indeed a prophecy only of a temporal deliverance; but, as it is expressed in terms relating to the death and resurrection of man, the doctrine of a resurrection must then have been well known, and generally received, or such language would have been altogether unintelligible. In the book of Ezekiel, xxxvii. 3, there is also a particular description of the resurrection; which must have made the hope and belief of it very general among the Jews.

The law had also certainly a spiritual meaning to be understood when the fulness of time should come. Every Christian sees a striking resemblance between the sacrifice of the paschal lamb, which delivered the Israelites from the destroying angel in Egypt, and the sacrifice of the Lamb of God, which taketh away the sin of the world. Indeed the whole ritual of sacrifice must have led the more intelligent of them to faith in a future sacrifice; by which, while the heel of the seed of the woman should be bruised, the head of the serpent should be completely crushed: and as prophets were raised up from time to time, to prepare them for the coming of the Messiah, and to foretell the nature of his kingdom, there can be no doubt but that those inspired teachers would lay open to them, as far as was expedient, the temporary duration of the Mosaic law, and convince them that it was only the shadow of better things to come.

While the Israelites were thus gradually prepared for the coming of the Prince of Peace, we must not suppose that the rest of the world was totally neglected. The dispersion of the ten tribes contributed to spread the knowledge of the true God among the eastern nations. The subsequent captivity of the tribes of Judah and Benjamin must have confirmed that knowledge in the great empires of Babylon and Persia; and that particular providence of God, which afterwards led Ptolemy Philadelphus to get the Jewish Scriptures translated into the Greek language, laid the divine oracles open to the study of

every accomplished scholar. At last, when the arms of Rome had conquered the civilized world, and rendered Judea a province of the empire; when learning and philosophy were so universally diffused through the civilized world, that the success of an imposture was impracticable and hopeless; when the police of the Roman government was such that the intelligence of every thing important was quickly transmitted from the most distant provinces to the capital of the empire; ‘when that fulness of time was come, God sent forth his Son, made of a woman, made under the law, to redeem them that were under the law, that we might receive the adoption of sons.’

#### SECT. VI.—VIEW OF THEOLOGY, PECULIARLY CHRISTIAN.

The time fixed by the Jewish prophets for the coming of the Messiah being arrived, ‘a messenger was sent before his face to prepare his way before him by preaching the baptism of repentance for the remission of sins.’ This messenger was John the Baptist, a very extraordinary man, and the greatest of all the prophets. His birth was miraculous, the scene of his ministry the wilderness, his manners austere, and his preaching upright, without respect of persons. He frankly told his audience he was not the Messiah, that the Messiah would soon appear among them, that ‘he was mightier than himself, and that he would baptise them with the Holy Ghost and with fire.’

Mightier indeed he was; for, though born of a woman, the Messiah was not the son of a human father; and, though living for the first thirty years of his life in obscurity and poverty, he was the lineal descendant of David, and heir to the throne of Israel. But the dignity of his human descent, great as it was, vanishes from consideration when compared with the glory which he had with his Father before the world was. The Jewish dispensation was given by the ministry of Moses, and illustrated by subsequent revelations vouchsafed to the prophets; the immediate author of the Christian religion is the *λογος* of whom St. John declares that ‘he was in the beginning with God, and was God; that all things were made by him; and that without him was not any thing made that was made.’ We have already proved that in the one Godhead there is a Trinity of persons; and that the *λογος* is one of the three is apparent from these words of the apostle, and from many other passages of sacred Scripture. Thus he is called the Lord of Hosts himself; the first and the last, besides whom there is no God; the most high God; God blessed for ever; the mighty God, the everlasting Father, Jehovah our righteousness; and the only wise God our Saviour. This great Being, as the same apostle assures us, was made flesh, and dwelt among men; not that the divine nature was or could be changed into humanity; for God is immutable, the same Almighty and incomprehensible Spirit yesterday, to day, and for ever; but the Word or second person in the Godhead, assuming a human soul and body into a personal union with himself, dwelt upon earth as a man, veiling his divinity under mortal flesh.



This incarnation of the Son of God is perhaps the greatest mystery of the Christian faith, and that to which ancient and modern heretics have urged the most plausible objections. The doctrine of the Trinity, though expressly scriptural, is equally incomprehensible; but the nature of God and his mode of existence must necessarily be incomprehensible by finite beings. And therefore it is a philosophical truth that a revelation, which should contain nothing but comprehensible truths, would be equally incredible and useless. As well may we expect a river to contain the ocean as a finite being to comprehend the infinite God. The difficulty is not how two natures so different as the divine and human can be so intimately united as to become one person; for this union in itself is not more inconceivable than that of the soul and body in one man: but that which at first is apt to stagger the faith of the reflecting Christian is the infinite distance between the two natures in Christ, and the comparatively small importance of the object, for the attainment of which the eternal Son of God is said to have taken upon him our nature.

Much of this difficulty however will vanish to him who considers the ways of Providence, and attends to the meaning of the words in which this mystery is taught. The importance of the object for which the Word condescended to be made flesh, we cannot adequately know. The oracles of truth indeed inform us that Christ Jesus came into the world to save sinners; but there are passages scattered through the New Testament (Eph. i. 10; Col. i. 19, 20) which indicate not obscurely that the influence of his sufferings extends to other worlds besides this: and, if so, who can take upon him to say that the quantity of good which they may have produced was not of sufficient importance to move even to this condescension, a Being who is emphatically styled love?

Perhaps the very improper appellation of mother of God, which at an early period of the church was given to the Virgin Mary, may have been one cause of the reluctance with which the incarnation has been admitted; for such language, in the proper sense of the words, implies what those by whom it is used cannot possibly believe to be true; but it is not the language of Scripture. We are there taught that 'Christ being in the form of God, thought it no robbery to be equal with God; but made himself of no reputation, and took upon him the form of a servant, and was made in the likeness of man;' that 'God sent forth his Son made of a woman, made under the law, to redeem them that were under the law, that we might receive the adoption of sons' (Phil. ii. 6, 7; Gal. iv. 4, 5), and that 'the Word who was in the beginning with God, and was God, by whom all things were made, was made flesh, and dwelt among men (who beheld his glory, the glory as of the only begotten of the Father), full of grace and truth;' but we are no where taught that, as God, he had a mother!

While the Jews were instruments of enlightening the heathen nations of antiquity, their intercourse with those nations made them almost

unavoidably acquainted with the philosophy which was cultivated among the Chaldeans, the Persians, and the Egyptian Greeks; and, ingrafting many of the opinions derived from those schools upon the doctrines of Moses and the prophets, they corrupted their own religion while they improved that of their neighbours. Hence, by the time that Christ came among them, they had made the word of God of none effect through a number of idle fancies which they inculcated on the people as the traditions of the elders; and, as they had attached themselves to different masters in philosophy, their unauthorised opinions were of course different according to the different sources whence they were drawn. The peculiar tenets of the Essenes seem to have been a species of mystic Platonism. The Pharisees are thought to have derived their origin from a Jewish philosopher of the Peripatetic school; and the resemblance between the doctrines of the Sadducees and the philosophy of Epicurus has escaped no man's observation.

Most of these sects agreed in the expectation of the Messiah, but, unhappily for themselves, expected him to be a great temporal prince. To this mistake several circumstances contributed; some of their prophets had foretold his coming in lofty terms borrowed from the ritual law, and the splendor of earthly monarchs. The necessity of casting this veil over those living oracles is evident from the very nature of prophecy. And, at the time when the predictions were made, the Mosaic system had not run out half its course, and was therefore not to be exposed to popular contempt by an information that it was only the harsh rudiment of one more perfect. The Jews had suffered so much from the Chaldeans, the Greeks, and other nations by whom they had been conquered, and were then suffering so much from their masters the Romans, that their carnal minds could think of no deliverance greater than that which should rescue their nation from every foreign yoke. And what men earnestly wish they are very ready to believe.

As our Saviour came for a very different purpose, the first object of his mission was to rectify these notions of his erring countrymen. Accordingly he embraced every opportunity of inveighing against the false doctrines taught as traditions of the elders; and, by his knowledge of the secrets of all hearts, he exposed the vilhypocrisy of those who made a gain of godliness. The importance in which Moses held the ritual law, and to which, as the means of preserving its votaries from the contagion of idolatry, it was justly entitled, had led the Jews to consider every ceremony of it as of intrinsic value and perpetual obligation; but Jesus brought to their recollection God's declared preference of mercy to sacrifice; showed them that the weightier matters of the law, judgment, mercy, and faith, claimed their regard in the first place, and its ceremonial observances only in the second; and taught them, in conformity with the predictions of their own prophets, that the hour was about to come when the worship of God should not be confined to Jerusalem, but that 'true worshippers should every where worship ~~the Father~~ in spirit and in truth.'

By thus restoring the law to its original purity, and in many cases extending its sense, the blessed Jesus executed the office of a prophet to the lost sheep of the house of Israel; but, had he not been more than an ordinary prophet, he could not have abrogated the most trivial ceremony of it, nor even extended the sense of any of its moral precepts. It was necessary, therefore that Jesus, as he taught some new doctrines, and plainly indicated that greater changes would soon be introduced, should vindicate his claim to that exalted character which alone could authorise him to propose innovations. This he did in the amplest manner, by fulfilling prophecies and working miracles (see *MIRACLE*); so that the unprejudiced part of the people readily acknowledged him to be of a truth, 'that prophet who should come into the world—the Son of God and the King of Israel.' He did not, however, make any change in the national worship, or assume to himself the smallest civil authority. On the contrary he chose from the lowest and least corrupted of the people certain followers, whom he treated with the most endearing familiarity for three years, and commissioned at his departure to promulgate such doctrines as, consistently with the order of the divine dispensation, he could not personally preach himself. With these men, during the course of his ministry on earth, he went about continually doing good, healing the sick, casting out devils, raising the dead, repressing vice, preaching righteousness, and instructing his countrymen, by the most perfect example which was ever exhibited in the world, of whatsoever things are true, or honest, or just, or pure, or lovely, or of good report. The Scribes and Pharisees, however, finding him not that conqueror whom they vainly expected, becoming envious of his reputation among the people, and being filled with rancor against him for detecting their hypocritical arts, delivered him up to the Roman governor, who, though convinced of his innocence, yielded to the popular clamor, and crucified him between two thieves, as an enemy to Cæsar.

That Christ died for the benefit of the human race is a truth so apparent, from numberless texts, that no man professing Christianity has hitherto called it in question. Very different opinions have been formed indeed concerning the nature and extent of that benefit, and the means by which it is applied; but that the passion and death of the blessed Jesus were essential parts of his ministry on earth has never been controverted, unless perhaps by those modern Unitarians who have presumed to correct the supposed errors of the apostles and evangelists. That on the cross he made satisfaction to his Father for the sins of the world is the general belief of Christians; but presumptuous men, aiming at being wise beyond what is written, have started a thousand idle questions concerning the necessity of such satisfaction, and the manner in which it was made. We enter not into these debates. The Scriptures have nowhere said what God could or could not do; and on this subject we can know nothing but what they have taught us. That 'we are reconciled to God by the death of his Son' is the principal doctrine

of the New Testament; and, without presuming to limit the power, the mercy, or the wisdom of him who created and sustains the universe, we shall endeavour to show that it is a doctrine 'worthy of all acceptance.' In doing this we shall state impartially the opinions which men really pious have held respecting the form or manner in which Christ by his death made satisfaction to God for the sins of the world; and leave our readers to embrace that opinion which shall appear to them most consonant to the general sense of Sacred Scripture.

The stricter Calvinists, interpreting literally such texts of Scripture as speak of his being made sin for us, of his bearing our sins in his own body on the tree, and of the Lord's laying on him the iniquity of us all, contend that the sins of the elect were lifted off from them and laid upon Christ by imputation, much in the same way as they think the sin of Adam is imputed to his posterity. 'By bearing the sins of his people,' says Dr. Gill, 'he took them off from them, and took them upon himself, bearing or carrying them as a man bears or carries a burden on his shoulders. There was no sin in him inherently, but sin was put upon him by his Divine Father, as the sins of the Israelites were put upon the scape-goat by Aaron.'—See Gill's *Body of Divinity*, vol. ii. b. iii. c. v.

The zeal with which this doctrine was taught by some of the reformers, and the impossibility of admitting it, which every reflecting and unprejudiced mind must feel, was probably one of the causes which drove Socinus and his followers to the other extreme of denying Christ's satisfaction altogether, and considering his death as nothing more than that of an ordinary martyr, permitted for the purpose of attesting the truth of his doctrine, and paving the way for his resurrection, to confirm the great promise of immortality. According to these men, forgiveness is freely dispensed to those who repent, by the essential goodness of God, without regard to the merit or sufferings of any other being; and the gospel is said to save from sin, because it is the most perfect lesson of righteousness. The great objection of Crellius to the doctrine of the satisfaction is, that it is a hindrance to piety: for, if Christ has paid the whole debt, he thinks that we must have nothing to do, as nothing more can be required of us. And if it were indeed true that our sins are imputed to Christ, and his righteousness imputed to us, this objection would be insurmountable; for God could not justly exact a double punishment for the same sin, or inflict misery upon those to whom he imputes perfect righteousness. But, as to this imaginary transferring of virtues and vices from one person to another, the Christian Scriptures give no countenance, so they nowhere call the death of Christ a satisfaction for the sins of men. The term has indeed been long in use among divines, and when properly explained it may be retained without danger; but, in treating of this subject, it would perhaps be more prudent to restrict ourselves to the use of Scripture language, as the word satisfaction carries in it the idea of a debt paid and accepted; whereas Paul says, that 'eternal life is the gift of God through Jesus Christ our Lord;



and that we are justified freely by his grace, through the redemption that is in Jesus Christ, whom God has set forth to be a propitiation through faith in his blood.'

To attain adequate notions of redemption and justification, it will be necessary to look back to the fall, and to remember that, 'as by the offence of one, judgment came upon all men to condemnation; even so, by the righteousness of one, the free gift came upon all men unto justification of life;' that, 'as by one man's disobedience many were made sinners, so by the obedience of one shall many be made righteous;' and that, 'as in Adam all die, even so in Christ shall all be made alive.' It is therefore undeniable that whatever we lost in the first Adam is restored to us by the second; and so they who believe that the punishment denounced against eating the forbidden fruit was death corporal, spiritual, and eternal, must believe that we are redeemed from all these by Christ; who, having 'appeared once in the end of the world to put away sin by the sacrifice of himself, died for us, that whether we wake or sleep we should live together with him.' If the image of God in which man was created was lost by the breach of the first covenant, it is more than restored to us 'by the mediator of a better covenant, which is established upon better promises;' if by the sin of Adam we were utterly indisposed, disabled, and made opposite to all that is spiritually good, and wholly inclined to all evil, and that continually, we are freed from that dreadful curse by 'our Saviour Jesus Christ, who gave himself for us, that he might redeem us from all iniquity, and purify to himself a peculiar people zealous of good works;' and if for our share in the first transgression we be justly liable to all punishments in this world and in that which is to come, the apostle assures us, that 'when we were enemies we were reconciled to God by the death of his Son, because that God was in Christ reconciling the world to himself, not imputing their trespasses unto them.' As Jesus is 'the Lamb slain in the divine decree from the foundation of the world,' these beneficial consequences of his death have been extended, by a retrospective view, to all in every age whose names are written in the book of life, though it is absurd to suppose that he literally took their sins upon him, and impious to imagine that he suffered under the imputation of sin. Such is the general doctrine of redemption, as it is taught by the more moderate Calvinists and the more moderate Remonstrants; for moderate Christians of all denominations, though they express themselves differently, have nearly the same views of the fundamental articles of their common faith.

It is one of the fundamental doctrines of the Calvinistic school that 'none are redeemed by Christ, effectually called, justified, adopted, sanctified, and saved, but the elect only' (Confession of Faith, c. iii. sect. 6); and if the notions of redemption which, in the end of the seventeenth century, were very generally embraced, be admitted as just, it will not be easy to overturn the arguments by which that doctrine is supported. It is also farther argued in this school that the doctrine of universal redemption reflects on the wisdom, the justice, and the power of God, and robs him of his glory.

The Scriptures assure us that all men shall not be saved; but how can this be if Christ died for all, and the scheme of salvation by his death was formed by infinite wisdom? The Arminians indeed say that those who fail of salvation fail through their own fault in not performing the conditions required of them; but God either knew or knew not that such men would not perform such conditions. If he knew it not his knowledge is limited; if he did know it, where was his wisdom in providing a scheme of redemption for men to whom he was aware that it would be of no benefit? This notion of a limited redemption, as they think it more worthy of the sovereignty of God, they believe to be taught by our Saviour himself in John vi. 37—40. But the Arminians, on the other hand, contend that it is impious to limit the effects of Christ's death to a chosen few, since it appears from Scripture that, by the decree and intention of his Father, he tasted death for every man, that all, without exception, might through him obtain remission of their sins. 'For God so loved the world that he gave his only begotten Son, that whosoever believeth in him should not perish but have everlasting life.' In perfect conformity with the doctrine of his divine Master St. Paul teaches that 'Christ died for all; that God was in Christ reconciling the world to himself, not imputing their trespasses unto them;' that 'he will have all men to be saved, and to come unto the knowledge of the truth;' that 'Christ gave himself a ransom for all;' and that 'Jesus was made a little lower than the angels, that by the grace of God he should taste death for every man.' The very same thing is taught by St. Peter and St. John. The former says that 'the Lord is not willing that any should perish, but that all should come to repentance;' and the latter that 'Jesus Christ the righteous is the propitiation for our sins; and not for ours only, but for the whole world.'

Upon these texts the Arminians are willing to rest their doctrine of universal redemption; though they think that a very strong additional argument for its truth arises from the numberless absurdities which flow from the contrary opinion. Thus, say they, the apostles were commanded by our Saviour to 'go into all the world and preach the gospel to every creature;' and all who hear it preached are required to believe it. Lastly, if Christ died not for all, then is it certain that he cannot claim dominion over all in consequence of his death and resurrection; but St. Paul says expressly that 'to this end Christ both died, and rose, and revived, that he might be the Lord both of the dead and living.' The Arminians, however, acknowledge that though Christ died for all, there are many who will not be saved: for, say they, the death of Christ did not literally pay the debts incurred by sinners, but only obtained for them the gracious covenant of the gospel, by which all who believe in him, and sincerely endeavour to work out their own salvation with fear and trembling, are entitled to forgiveness of sins and eternal life.

Among these various opinions respecting the complete object of the death of Christ the seri-

ous reader, divesting himself of prejudice, must search the Scriptures and adopt the theory which he shall find most explicitly taught in that sacred volume; but as in every system it is admitted that one purpose for which Christ died was to redeem mankind from the everlasting power of the grave, and bring to light, life, and immortality, it is of the utmost importance to know whether that purpose has been fully attained. And as the Scriptures give us no hopes of being rescued from the dominion of death but by a resurrection, some evidence seems necessary to evince that a general resurrection shall actually take place. This we are promised as one great benefit purchased for us by the sufferings of Christ on the cross.

The resurrection of a man from the dead is an event indeed so different from the common course of things, that nothing but the most complete evidence can make it an object of rational belief; but, as the resurrection of Jesus has always been said to have had God for its Author, it is an effect which does not exceed the power of the cause assigned, and is therefore an event possible in itself and capable of proof. It is a deviation from the laws of nature, but it is not contradictory to any one of those laws. But that a great number of men and women should deliberately form a plan of ruin and misery to themselves, without a prospect of the smallest advantage either in this world or in the next, is as different from the common course of things as the resurrection from the dead; and therefore in itself at least as great a miracle: but that they should persist in prosecuting this plan in the midst of torments; that they should spread themselves over the whole world, and every where publish a number of falsehoods, without any one of them contradicting the rest; that truth should never escape them either in an unguarded moment, or when lingering on the rack, and yet that all their lies should be in perfect agreement with each other; that they should every one of them court sufferings for a person whom they knew to be an impostor; that not one of the number—not even a single woman—should have had so much compassion for a fellow-creature as to rescue him from the flames, by confessing a truth which could injure nobody—not even the suffering deceivers themselves; all this is not only different from the common course of things, but directly contrary to the most known laws of nature, and is therefore not miraculous, but may be pronounced impossible. Yet this impossibility we must admit, or acknowledge, that as ‘Christ died for our sins, according to the Scriptures, and was buried; so he rose again the third day, according to the Scriptures; that he was seen of Cephas, then of the twelve; after that of above 500 brethren at once; after that of James; then of all the apostles; and that he was last of all seen of St. Paul,’ who was converted by the vision, to preach the faith which till then he had persecuted.’

That our blessed Lord ascended into heaven will hardly be denied by any one who admits that he rose from the dead. The ascension was indeed the natural consequence of the resurrection; and he seems to be represented as sitting

on the right hand of God, to denote that regal authority with which he is now invested.

The first conspicuous proof which our blessed Lord gave of being vested with supreme power, and made head over all things to the church, was on the day of Pentecost. He had told the apostles that he would pray the Father to give them another comforter, even the Spirit of truth, who should teach them all things, and bring all things to their remembrance: these promises were amply fulfilled by the gift of tongues, as related in Acts ii. 1—13. That those who heard the apostles speak so many different languages were amazed is what we should naturally suppose; but that a single individual among them remained unconvinced is astonishing; for the gift of tongues is one of the most palpable miracles that ever was wrought. It is likewise one of the best authenticated miracles; for the Acts of the Apostles was written not more than thirty years after the event took place; and it is not conceivable that, within so short a period, St. Luke, or any man of common sense, would have appealed for the truth of what he recorded to so many inveterate enemies of the Christian name, had he not been aware that the miraculous gift was a fact incontrovertible.

The immediate author of this gift, so necessary to the propagation of the gospel, was the Spirit of truth, or the Comforter, who is the Holy Ghost. That there are three persons in the one Godhead has been already shown at large in this article; and that the Holy Ghost is one of these three is evident from the form of baptism instituted by Christ himself. But, as more plausible objections have been urged against his divinity than any that we have met with against that of Christ, it is proper to consider these before we proceed to give an account of the graces which he imparted to the infant church, and of the apostles preaching under his influence. By the Arians the Holy Ghost is considered as a creature; by the Socinians and modern Unitarians, as they call themselves, the words Holy Ghost are supposed to express, not a person or spiritual subsistence, but merely an energy or operation, a quality or power of the Father, whom alone they acknowledge to be God. If this doctrine can be confuted, the Arian hypothesis will fall to the ground.

The Socinians admit that in the Scriptures many things are spoken of the Holy Ghost which can be properly predicated only of a person; but the inference drawn from this concession they endeavour to invalidate by observing that in Scripture there are likewise expressions in which things are predicated of abstract virtues which can be literally true only of such persons as practise these virtues: as in 1 Cor. xiii. 4, 6, of charity. In like manner, say they, personal actions are attributed to the Holy Ghost, which itself is no person, but only the virtue, power, or efficacy, of God the Father; because God the Father, who is a person, performs such actions by that power, virtue, or efficacy in himself, which is denominated the Holy Ghost. Thus when we read, Acts x. 9, 20, that ‘the Spirit said unto Peter, Behold three men seek thee,’ we must understand that God the Father was the



person who spoke these words and sent the three men; but, because he did so by that virtue in him which is called the Spirit, therefore the Spirit is said to have spoken the words and sent the men. Again, when 'the Holy Ghost said to those at Antioch, Separate me Barnabas and Saul for the work whereunto I have called them,' Acts xiii. 2, we are to conceive that it was God the Father who commanded the two apostles to be separated for the work to which he had called them; but, because he had done all this by that power within him which is called the Holy Ghost, therefore his words and actions are attributed to the Holy Ghost, just as long-suffering in men is attributed to charity.

This is plausible, and would have some more force were all the actions which in Scripture are attributed to the Holy Ghost of such a nature, as that they could be supposed to have proceeded from the person of God the Father in consequence of any particular power or virtue in him; but this is far from being the case. Thus 'the Spirit is said to make intercession for us' (Rom. viii. 26, 27): but with whom can we suppose God the Father, the fountain of divinity, to intercede? Our Saviour assured his disciples that the Father would, in his name, send to them the Holy Ghost, who is the Comforter (John xiv. 26; xv. 26, &c.); that he would himself send the Comforter unto them from the Father; that the Comforter should not speak of himself, but speak only of what he should hear; and that he should receive of Christ's, and show it unto them. But we cannot, without blasphemy and absurdity, suppose that the Father would, in the name of Christ, send himself; that the Son would send the Father from the Father; that the Father would not speak of himself, but speak only what he heard; or that either the Father in person, or a quality of the Father, should receive any thing of Christ to show unto the apostles. The sagacity of Socinus perceived the force of such objections as these, and therefore he invented another prosopopeia to serve his purpose in the interpretation of those texts to which this one cannot be applied. 'The Spirit of God,' says he, 'may be considered either as a property or power in God, or as the things on which that power is working. When taken in the former sense, the Spirit, where any personal attribute is given to it, means God the Father; when taken in the latter sense, it means the man on whom the power of the Father is working; who, as long as he is affected by that power, is therefore called the Spirit of God;' and he quotes, we think most absurdly, the 10th verse of the 2d chapter of 1 Cor. as a text in which by the Spirit is meant an inspired man who could search all things, yea, even the deep things of God.

The Holy Ghost, as it appears to us, is unquestionably a person; for, though there are many passages of scripture in which the gifts of the Holy Ghost are called the Holy Ghost, they are so called by a very common figure of speech, in which the effect receives the name of its cause: and since this person is joined with the Father and the Son in the formula of Christian baptism; since they who lied to the Holy Ghost are said to have lied unto God (Acts v. 4); since blasphemy against him is a more heinous offence than the same sin

against even the Father or the Son; and since it was by the operation of the Holy Ghost that Jesus Christ was conceived of the Virgin Mary, and even on that account called the Son of God—it follows undeniably that the Holy Ghost is God, of the same substance with the Father and Son. It was this Divine Spirit who, on the day of Pentecost, inspired the apostles with the knowledge of different languages; and, as these were given only to enable them to preach the gospel to every creature, it can admit of no doubt but that he, who so amply provided the means of preaching, would take care that the gospel should be preached in purity. Men thus qualified were well fitted to declare all the counsel of God. By the word of wisdom, they communicated to the Gentile nations a pure system of religion; turning them from the vanity of idols to the worship of the living God: by the word of knowledge, they preached the great doctrines of revelation both to Jews and Gentiles, showing them that there is none other name under heaven given unto men whereby they may be saved, than the name of Jesus Christ, and by their gifts of healing and of miracles, &c., they were enabled to prove unanswerably that their doctrines were divine. They taught every where the unity of God, the creation of the world, the fall of man, the necessity of redemption, the divinity of the Redeemer, his sacrifice on the cross to assure mankind of immortality, and the terms of the new covenant into which they had through him been graciously admitted by God.

Such a view as our limits would admit of we have given of all these doctrines, except that which respects the terms of the gospel covenant; but, these being explicitly stated only by St. Paul and St. James, we could not till now investigate them, without violating the order into which, for the sake of perspicuity, we have digested the several parts of this short system. Our Saviour himself has indeed taught with great plainness, the necessity of faith and baptism to the salvation of those who have an opportunity of hearing the gospel preached with power; and in his sermon on the mount, which is such a lecture of Ethics founded on religion as the Son of God only could have delivered, we learn that 'unless our righteousness shall exceed the righteousness of the Scribes and Pharisees, we shall in no case enter into the kingdom of heaven;' and that even the very first thoughts of vice are highly criminal. St. Paul, however, attributes our justification to the bare act of believing; for he repeatedly assures us that a man is justified by faith without the deeds of the law; while St. James, on the other hand, affirms 'that by works a man is justified, and not by faith only.'

This apparent difference in the language of these two apostles, for we hope to show that it is only apparent, has produced among divines opinions really different respecting the justification of Christians; and the principal of these opinions we shall endeavour to state. But, previous to this, it is proper to ascertain the meaning of the word justification; for we must say, that, for want of accurate definitions, many theological controversies are nothing better than empty logomachies; and perhaps no controversy merits this charge more than that which, in the end of the seven-

teenth century and in the beginning of the eighteenth, was so violently agitated concerning the causes, the instruments, and conditions of justification.

The word justification, as used both by St. Paul and St. James, has been very generally considered as a forensic term, expressing the sentence of a judge. The most eminent reformed divines of all denominations (Limborch, Bull, Waterland, Warburton, Beveridge, Gill, &c.), and even many of the Romanists themselves, have strenuously contended that this is its genuine sense, when it is distinguished from mere remission of sins, regeneration, and sanctification; and, if so, it will signify God's pronouncing a person just, either as being perfectly blameless, or as having fulfilled certain conditions required of him in the Christian covenant. But that 'there is not a just man upon earth, who doeth good and sinneth not,' we are assured, by the most complete evidence possible, the joint dictates of our own consciences and of divine revelation; and therefore whosoever is pronounced just, by the judge of all the earth, must be so, either because, though not absolutely blameless, he has performed the conditions required of him in the covenant of grace, or because Christ has fulfilled all righteousness in his stead.

If this be the Scripture doctrine of justification, it must be wholly the act of God, and cannot be the effect either of our faith or of our virtue. Accordingly, we are said by the apostle to be justified freely by his grace through the redemption that is in Jesus Christ: whom God hath set forth to be a propitiation through faith in his blood (Rom. iii. 14, 25). The act of justification therefore proceeds from the divine philanthropy, and cannot be performed by the instrumentality of faith; for it is not God, but man, who believes; and man is not the justifier of himself. To talk of any kind of instrument of justification, besides the propitiation set forth by God, is indeed to make use of very improper language.

In this sentiment of the illustrious bishop Bull of St. David's, that justification is solely an act of God's grace, some of the most eminent divines both among the Calvinists and Arminians agree. Many, however, treat of justification not only in the active sense, as it is the act of God, for all admit that it is he who justifies; but likewise in a passive sense, as it means our privilege or possession holden of him, when we are said to be justified by his grace. In this view of the subject they may talk, with sufficient propriety, of an instrument of justification, not as the mean by which it is conveyed, but as the medium through which it is received by the true Christian. And hence Drs. Waterland and Warburton, of whom the former was not a thorough Calvinist, and the latter was a professed Arminian, strenuously maintain the doctrine of the Westminster Confession, that 'faith receiving and resting on Christ is the alone instrument of justification: though it cannot be alone in the person justified, but must ever be accompanied with all other saving graces, and be a faith which worketh by love.'

Such is the doctrine of Christian justification

as it has been taught by the followers of Calvin, and by some of the most eminent Arminians who flourished in the end of the seventeenth and beginning of the eighteenth century. They appear not, from this view of their opinions, to differ so widely as some of them have wished the world to believe. It is evident that Dr. Waterland, though he rejects some of the distinguishing tenets of Calvinism; lays greater stress upon faith in his scheme of justification than Dr. Gill himself: and that they both consider it as the instrument by which the adult Christian must receive the imputed righteousness of Christ. The greater part of modern Arminians, however, exclaim against the imputation of Christ's righteousness, as a doctrine false in itself, and fraught with the most pernicious consequences. It is not true, say they, that God exacts of man, or ever did exact of him, an obedience absolutely perfect; for under every dispensation man was in a state of discipline; and had habits of virtue and piety to acquire. Most of them, after bishop Bull, dislike the use of such unscriptural phrases as the instrument of justification, applied either to faith or to works; and think that by considering God as the sole justifier of man, upon certain conditions, they can more precisely ascertain the distinct provinces of faith and obedience, in the scheme of justification, than either of their brethren of the old school of Arminius, or their rivals of the school of Calvin. But both parties have multiplied words to no purpose.

Thus graciously has the divine goodness displayed itself in the restoration of our lost inheritance. But it stopped not here. The same bountiful Lord of life, for its further security, imparts to every true believer the strength and light of his Holy Spirit to support faith in working out our salvation. Our blessed Saviour, 'who gave himself for us, that he might redeem us not only from death, but likewise from all iniquity, and purify to himself a peculiar people zealous of good works,' promised, before he left this world, 'to send to his followers the Holy Ghost or Comforter to abide with them for ever, to guide them into all truth, to bring all things to their remembrance whatsoever he had said unto them,' and, as we learn from other passages of Scripture, to 'work in them both to will and to do of his good pleasure.' How amply this promise was fulfilled to the apostles, we have already seen; but we are not to suppose that it was restricted to them. As man is designed for a supernatural state in heaven, he stands in need of supernatural direction to guide him to that state. 'No man,' says our Saviour, 'can come to me except the Father draw him; for, as no man knoweth the things of a man save the spirit of a man which is in him, even so none knoweth the things of God but the Spirit of God.' This omniscient Spirit indeed 'searcheth all things, yea, even the deep things of God,' and revealeth them to the sons of men, to enlighten their understandings and purify their hearts. The grace which he sheds abroad is either external and general, or internal and particular. The former has been extended to the whole church of God under the patriarchal, Mosaic, and Christian dispensations, in such a revelation of the divine



will as was sufficient to instruct men unto eternal life, whether they had a clear view or not of that stupendous plan of redemption, by which the kingdom of heaven was opened to them after the forfeiture of the terrestrial paradise; for there have been holy prophets ever since the world began; 'and prophecy came not at any time by the will of man, but holy men of God spake as they were moved by the Holy Ghost.' Hence it is that all Scripture was given by inspiration of God, to teach us every thing which is necessary for us to know and believe; and the Scripture is that work of the Spirit which is extended to the universal church. The same Holy Spirit which thus generally reveals the objects of faith to the church, doth likewise particularly illuminate the minds of individual believers, working in them an assent to that which is taught them from the written word. It was thus that 'the Lord opened the heart of Lydia, that she attended to the things which were spoken by Paul;' it is thus that 'the word preached doth not profit, if it be not mixed with faith in them who hear it;' and it is thus that 'God deals to every man the measure of faith;' for 'by grace we are saved, through faith, which is not of ourselves; it is the gift of God.' This illumination of the Spirit was conveyed to the apostles 'in a sound from heaven as of a rushing mighty wind,' because it was meant to testify to the world that they were chosen ministers of the gospel; but the ordinary Christian receives it in the 'still small voice,' because it is conveyed to him only to open his understanding that he may understand the Scriptures.

Another operation of the Spirit on the minds of believers is that which in Scripture is called regeneration; for 'according to his mercy God saveth us by the washing of regeneration and renewing of the Holy Ghost, which he sheds on us abundantly through Jesus Christ our Lord.' To those who believe that we derive from Adam a corrupted nature, this particular grace must appear so absolutely necessary, that without it we could have no relish for heaven or heavenly things. 'The natural man,' we are told, 'receiveth not the things of the Spirit of God; for they are foolishness to him: neither can he know them, because they are spiritually discerned.' Indeed, whatever be the powers of our moral faculties, when compared with those of our first father, it is so long before they be completely developed, that we should infallibly be lost, if we were not blessed by a supernatural guide, when reason is incapable of directing our conduct. Our passions and appetites are in their full strength before experience has furnished the mind with materials, by means of which motives may be weighed; and therefore it would be impossible, during the giddy period of youth, to keep them in due subjection, were we not influenced by divine grace. So true is it, that 'except a man be born again of water and of the Holy Ghost, he cannot enter into the kingdom of God.' This change in our dispositions, from an immoderate attachment to earth to a relish for the things of heaven, is in Scripture called 'a renewing of our minds, a new creation, a new man;' in opposition to our natural disposition, which is called

'the old man, corrupted according to the deceitful lusts.'

A third office of the Holy Spirit is to lead, direct, and govern us through all the periods of our lives; and a fourth, if indeed it can be called a distinct one, to join them to Christ, and make them members of that one *body* of which he is the head. 'For by one Spirit are we all baptised into one body; and as the body is one and hath many members, and all the members of that one body, being many, are one body, so also is Christ.' It is likewise the office of the Holy Ghost to give us an earnest of our everlasting inheritance, to create in us a sense of the paternal love of God, and thereby to assure us of the adoption of sons. 'As many as are led by the Spirit of God, they are the sons of God; and, because we are sons, God hath sent forth the spirit of his Son into our hearts.'

As the gifts of grace are generally annexed to means, or to the proper use of the word and sacraments, it is a sixth office of the same Spirit to sanctify such persons as are regularly set apart for the work of the ministry, and ordained to offer up the public prayers of the people; and to administer Christian ordination. By these and the like means does the Spirit of God sanctify the sons of men; and, in consequence of this sanctification proceeding immediately from his office, he is called the Holy Spirit and the Comforter. That this is such a provision 'for renewing us in the spirit of our minds, and enabling us to put on the new man, which, after God, is created in righteousness and true holiness,' as, when made known by revelation, appears to have been expedient, may be conceived to have been even necessary, and though reason could hardly have hoped for it, is contradicted by none of our natural notions either of God or of man.

From this short view of the several dispensations of revealed religion, it is evident that the gospel is not only the best, but the last gift of the kind which man has to expect from his Maker. A new revelation therefore like that of Mahomet cannot be admitted without rejecting the whole Bible, though the impostor himself every where acknowledges the inspiration of Abraham, of Moses, and of Christ. Nor is greater regard due to the claims of Christian enthusiasts. Such of these men as pretend to have brought spiritual discoveries to the earth have either forgotten, or never understood, that in the scriptures of the Old and New Testaments the great scheme of Providence appears to be closed, in full completion of its one regular, entire, and eternal purpose; that St. Paul has pronounced a curse upon any man or angel from heaven who should preach another gospel than what has been already preached by the apostles and evangelists; that in their writings we are taught every thing which it is our duty to believe or to practise in order to our own salvation; and that we have the promise of our blessed Lord himself, that the spirit of truth shall remain with us to guide us into all necessary truth, till the great day when he shall come again to judge the world in righteousness, and render to every man according to his works.

**THEOMANCY** (from *θεος*, and *μαντια*), prophecy. The gift of prophecy.

**THEON**, an ancient Greek sophist, who wrote a Treatise on Oratory, entitled *Progymnasmata*. It is still extant, and is written with elegance. It was printed at Leyden, in 1726; with a Latin translation.

**THEON**, an eminent philosopher and mathematician of Alexandria, who flourished in the reign of Theodosius the Great, and taught mathematics in a school at Alexandria, which was afterwards kept up by his unparalleled daughter, the learned lady Hypatia, who in spite of her beauty, learning, and other accomplishments, died a martyr to Christianity, in a barbarous pagan mob. See *HYPATIA*. Theon wrote several works; particularly, A Commentary on Euclid, which was printed in Greek, at Basil, in 1588, fol., and a Commentary on Aratus; Oxford, 1627, in 4to.

**THEOPASCHATITES**, a sect of Christian heretics, who flourished in the fifth century, and taught that all the three persons in the Godhead suffered on the cross. They were the followers of Peter Fullo, bishop of Antioch.

**THEOPHANES**, an ancient Greek historian, born at Mitylene, and an intimate friend of Pompey the Great. He wrote a History of Byzantium, which was printed at Paris, in fol. in 1649.

**THEOPHANES** (M. Pompeius), son of the preceding, was made governor of Asia, and highly favored by Tiberius.

**THEOPHANES** (George), another Greek historian, born at Constantinople, in the seventh century, of a noble family, entered into the monastic order, and was received with great respect at the seventh general council; but the emperor Leo, the Armenian, banished him to Samothrace: where he died in 828. He wrote a Chronicle of the Greek empire, beginning where Syncellus ends, and continued down to the reign of Michael Curopalatus. It was printed at the Louvre, in fol. in 1655.

**THEOPHANIA**, festivals anciently held at Delphi, in honor of Apollo.

**THEOPHILANTHROPISTS**, from *θεος*, God, *φιλειν*, to love, and *ανθρωπος*, a man; a sect of deists, who, in September 1796, published at Paris a sort of catechism or directory for social worship. The sect found a considerable number of adherents during the ferment of the Revolution; but Buonaparte took from them the use of the parish churches, and we believe the sect is now extinct.

**THEOPHILUS**, a writer and bishop of the primitive church, was educated a Heathen, and afterwards converted to Christianity. He was ordained bishop of Antioch A. D. 170; and he governed this church twelve or thirteen years. He was a vigorous opposer of certain heretics of his time, and composed a great number of works; all of which are lost, except three books to Autolytus, a learned Heathen of his acquaintance, who had undertaken to vindicate his own religion against that of the Christians. It is remarkable that this patriarch of Antioch was the first who applied the term Trinity to express the Three Persons in the Godhead.

**THEOPHRASTA**, in botany, a genus of plants belonging to the class of pentandria and order of monogynia. The corolla is campanulate, with divisions and segments obtuse; the capsule unilocular, globular, very large, and many-seeded. There is only one species, *T. Americana*.

**THEOPHRASTUS**, a celebrated Greek philosopher, the son of Melanthus, was born at Eresus in Lesbos. He was first the disciple of Leucippus in his own country; next of the celebrated Plato at Athens; and last of Aristotle. He succeeded Aristotle in the Peripatetic school, and conducted the charge with such high reputation that he had about 2000 scholars. He is highly celebrated for his learning and public spirit. He is said to have twice freed his country from the oppression of tyrants, and contributed liberally towards defraying the expense attending the public meetings of philosophers. In the schools he commonly appeared, as Aristotle had done, in an elegant dress, and was very attentive to the graces of elocution. He lived to the advanced age of 105: some say of 107. Towards the close of his life, he grew exceedingly infirm, and was carried to the school on a couch. He expressed great regret on account of the shortness of life; and complained that nature had given long life to stags and crows, to whom it is of little value, and had denied it to man, who, in a longer duration, might have been able to attain the summit of science; but now, as soon as he arrives within sight of it, is taken away. His last advice to his disciples was, that since it is the lot of man to die as soon as he begins to live, they should take more pains to enjoy life as it passes, than to acquire posthumous fame. His funeral was attended by a large body of Athenians. He wrote many valuable works, of which all that remain are, several treatises on the Natural History of Plants and Fossils; Of Winds, Of Fire, &c., an excellent moral treatise, entitled Characters; which he says, in his preface, he composed when he was ninety-nine years of age. It has been repeatedly translated into French, English, &c. To Theophrastus we are indebted for preserving the works of Aristotle. See *ARISTOTLE*.

**THEOPHYLACT**, *THEOPHYLACTUS*, a learned Greek father born at Constantinople, about A. D. 1070, or earlier. He became archbishop of Achridia, and metropolitan of all Bulgaria. He wrote Commentaries on the Gospels, the Acts, several of the Epistles, and of the minor Prophets; also *Institutio Regia*; Letters and some historical tracts. His whole works were printed at Paris in fol. 1647: also at Venice, in 4 vols. 1754—1763.

**THEOPOLIS**, *θεος* and *πολις*, a city, q. d. the city of God, a name given to Antioch.

**THEOPOMPUS**, a celebrated Greek orator and historian, was born in the island of Chios, and flourished in the reign of Alexander the Great. He was one of the most famous of all the disciples of Isocrates, and won the prize from all the panegyrists whom Artemisia invited to praise Mausolus. He wrote several works which are lost.

**THEOPOMPUS**, king of Sparta, a binarch of the



family of Proclidæ. See SPARTA. He died after a long and successful reign, during which the Messenian war was carried on, about A. A. C. 723.

THEOR'BO, *n. s.* Fr. *tuorbe*; Ital. *tiorba*. A large lute for playing a thorough bass, used by the Italians.

He wanted nothing but a song.

And a well tuned *theorbo* hung

Upon a bough, to ease the pain

His tugged ears suffered, with a strain. *Butler.*

THEOREM, *n. s.* Fr. *theoreme*; Greek THEOREMAT'IC, *adj.* } *θεωρημα*. A position THEOREMAT'ICAL, } laid down as truth; THEOREM'IC. } comprised of or relating to theorems.

Having found this the head *theorem* of all their discourses, who plead for the change of ecclesiastical government in England, we hold it necessary that the proofs thereof be weighed. *Hooker.*

The chief points of morality are no less demonstrable than mathematics; nor is the subtilty greater in moral *theorems* than in mathematical.

*Mora's Divine Dialogues.*

Many observations go to the making up of one *theorem*, which, like oaks fit for durable buildings, must be of many years growth. *Graunt.*

Here are three *theorems*, that from thence we may draw some conclusions. *Dryden's Dufresnoy.*

*Theoremick* truth, or that which lies in the conceptions we have of things, is negative or positive. *Grew.*

Her thoughts were *theorems*, her words a problem, as if she deemed that mystery would ennoble 'em. *Byron.*

A THEOREM, mathematically, is a proposition which terminates in theory, and which considers the properties of things already made or done; or it is a speculative proposition deduced from comparing together several definitions. A theorem is something to be proved, and a problem something to be done.

THEORIUS, Gr. *θεωριος*, i. e. clear-sighted. A surname of Apollo, at Træzene.—Lemp.

THE'ORY, *n. s.* Fr. *theorie*; Greek THEORET'IC, *adj.* } *θεωρια*. Speculation; THEORET'ICAL, } scheme; plan or system, yet subsisting THEORET'ICALLY, *adv.* } only in the mind; THE'ORIC, *n. s.*

not practice: the adjectives and adverb correspond: *theoric* is used by Shakspeare for *theory*.

If they had been themselves to execute their own *theory* in this church, they would have seen, being nearer. *Hooker.*

When he speaks,  
The air, a chartered libertine, is still;  
And the mute wonder lurketh in men's ears,  
To steal his sweet and honied sentences:  
So that the act and practick part of life  
Must be the mistress to this *theorique*. *Shakspeare.*

The bookish *theorick*

Wherein the togged consuls can propose  
As masterly as he; meer prattle without practice  
Is all his soldiiership. *Id. Othello.*

In making gold, the means hitherto propounded to effect it are in the practice full of error, and in the *theory* full of unsound imagination.

*Bacon's Natural History.*

The *theoretical* part of the inquiry being interwoven with the historical conjectures, the philosophy of colours will be promoted by indisputable experiments.

*Boyle on Colours.*

For *theoretical* learning and sciences there is nothing yet complete. *Burnet's Theory of the Earth.*

Practice alone divides the world into virtuous and vicious; but as to the *theory* and speculation of virtue and vice, mankind are much the same.

*South's Sermons.*

The greatest *theorists* have given the preference to such a government as that which obtains in this kingdom. *Addison.*

True christianity depends on fact  
Religion is not *theory*, but act.

*Harte.*

THEOSOPHISTS, from *θεος*, God and *σοφια*, wisdom, a fanatical sect of philosophers, who rose about the end of the sixteenth century, and pretended to derive all their knowledge from divine illumination. They ascribed this to the singular manifestation of divine benevolence, that they were able to make such a use of the element of fire, in the chemical art, as enabled them to discover the essential principles of bodies. Hence they were also called Fire-Philosophers. One of their chief leaders and ornaments was the celebrated Paracelsus, from whom they were called Paracelsists.

THEOXENIA, a festival held annually in all the cities of Greece, but chiefly at Athens, in honour of all the gods.

THERAMENES, a celebrated Athenian general, patriot, and philosopher. He defeated the Megarians, and suppressed a tumult in Athens; but the Athenians being at last completely subjugated by the Spartans, who demolished their walls and subjected them to thirty tyrants, all under Spartan influence, except Theramenes, who was the only one of the thirty that stood up for his country. The rest abused their power in the most cruel and arbitrary manner. But Theramenes's patriotic opposition to these tyrants only ended in his own death. It is said that when he drank the bowl of poison, he drank to the health of Critias, his accuser, but along with that compliment he imprecated a curse on the tyrant, which was soon after fulfilled.

THERAPEUTÆ, a term that has been variously applied to those that are occupied wholly in the service of religion. A Jewish sect was so called from the extraordinary purity of its religious worship. With a kind of religious phrenzy, they placed their whole felicity in the contemplation of the Divine nature; and, detaching themselves wholly from secular affairs, transferred their property to their relations or friends, and withdrew into solitary places. How long this sect continued is uncertain; but it is not improbable that, after the appearance of Christianity in Egypt, it soon became extinct.

THERAPEUTIC, *adj.* Gr. *θεραπευτικος*. Curative; teaching or endeavouring the cure of diseases.

The practice and *therapeutick* is distributed into the conservative, preservative, and curative.

*Harvey.*

*Therapeutick* or curative physick restoreth the patient into sanity, and taketh away diseases actually affecting.

*Broune.*

Medicine is justly distributed into prophylactick, or the art of preserving health; and *therapeutick*, or the art of restoring it.

*Watts.*

THERAPNE, an ancient town of Laconia, on the west bank of the Eurotas, where Apollo

had a temple called Phœbeum; near Lacedæmon. Castor and Pollux were born in it, and hence called Therapnæi.

THERAPNE, a daughter of Lelex, king of Sparta, who gave name to the above town.

THERAUD, an extensive district and town of Hindostan. The town contains nearly 3000 houses, and is surrounded by a wall and dry ditch, both in bad repair. The palace and temple are lofty buildings; but the houses are seldom more than one story high. The only water to be found is drawn from wells, which are sixty feet deep, and is brackish. The whole district is very dry and barren. The regular revenues of the chief are said to be only 20,000 rupees per annum.

THERE, *adv.*  
THERE'ABOUT,  
THERE'ABOUTS,  
THEREAFTER,  
THEREAT,  
THEREBY,  
THEREFORE,  
THEREFROM,  
THEREIN,  
THEREINTO,  
THEREOF,  
THEREON,  
THEREOUT,  
THERETO,  
THEREUNTO,  
THEREUNDER,  
THEREUPON,  
THEREWITH,  
THEREWITHAL.

Goth. *thar*; Sax. *ðær*; Dan. *der*; Belg. *daar*. In that place; opposed to here; and, in composition, often meaning that, as therefrom means from that (i. e. place), and this with the extracts will explain the principal compounds

Be ye therefore very courageous to do all that is written in the law, that ye turn not aside *therefrom*, to the right hand or to the left. *Jos. xxiii. 6.*

Wide is the gate, and broad is the way that leadeth to destruction, and many go in *thereat*.

*Matt. vii. 13.*

We have forsaken all and followed thee, what shall we have *therefore*? *Id. xix. 27.*

Peter called to mind the word that Jesus said; and when he thought *thereon* he wept.

*Mark xiv. 72.*

As they were much perplexed *thereabout*, two men stood by. *Luke xxiv. 4.*

Let not them that are in the countries enter *thereinto*. *Luke.*

*Therewith* at last he forced him to untie One of his grasping feet, him to defend *thereby*.

*Spenser.*

His hideous tail then hurled he about, And *therewithal* enwrapt the nimble thighs Of his froth-foamy steed. *Id.*

*Thereout* a strange beast with seven heads arose, That towns and castles under her breast did cour. *Id.*

Next *thereunto* did grow a goodly tree, That whereby we reason, live, and be. *Id.*

Considering how the case doth stand with this present age, full of tongue and weak of brain, behold we yield to the stream *thereof*. *Hooker.*

Every error is a stain to the beauty of nature; for which cause it blusseth *thereat*, but glorieth in the contrary. *Id.*

Some parts of our liturgy consist in the reading of the word of God, and the proclaiming of his law, that the people may *thereby* learn what their duties are towards him. *Id.*

Germany had stricken off that which appeared corrupt in the doctrine of the church of Rome, but seemed in discipline still to retain *therewith* very great conformity. *Id.*

Grace having not in one thing shewed itself, nor for some few days, but in such sort so long continued, our manifold sins striving to the contrary, what can we less *thereupon* conclude, than that God would at least-wise, by tract of time, teach the world, that the thing which he blesseth cannot but be of him? *Id.*

For reformation of error *there* were that thought it a part of christian charity to instruct them. *Id.*

Is it in regard then of sermons only, that, apprehending the gospel of Christ, we yield *thereunto* our unfeigned assent as to a thing infallibly true? *Id.*

*Therein* our letters do not well agree. *Shakespeare.*

This is the last parley we will admit;

*Therefore* to our best mercy give yourselves. *Id.*

You shall bereave yourself Of my good purposes, and put your children

To that destruction which I'll guard them from,

If *thereon* you rely. *Id. Antony and Cleopatra.*

To see thee fight, to see thee traverse, to see thee here, to see thee *there*. *Id. Merry Wives.*

Well, give her that ring, and give *therewithal*

That letter. *Id. Two Gentlemen of Verona.*

If they come to sojourn at my house, I'll not be *there*. *Id. King Lear.*

He hopes to find you forward, And *thereupon* he sends you this good news.

*Shakespeare.*

One speech I loved, 'twas Æneas's tale to Dido, and *thereabout* of it especially, where he speaks of Priam's slaughter. *Id. Hamlet.*

Those which come nearer unto reason find a paradise under the equinoctial line, judging that *thereunder* might be found most pleasure, and the greatest fertility. *Raleigh.*

The matter is of that nature, that I find myself unable to serve you *therein* as you desire. *Bacon.*

Though we shall have occasion to speak of this, we will now make some entrance *thereinto*. *Id.*

All things without, which round about we see, We seek to know, and have *therewith* to do.

*Davies.*

Between the twelfth of king John, and thirty-sixth of king Edward the third; containing one hundred and fifty years or *thereabouts*, there was a continual bordering war. *Id.*

Though grants of extraordinary liberties made by a king to his subjects do no more diminish his greatness than when one torch lighteth another, yet many times inconveniencies do arise *thereupon*.

*Id. on Ireland.*

Being come to the height, they were *thereby* brought to an absolute necessity. *Id.*

Within ourselves, we strangers are *thereto*.

*Davies.*

When you can draw the head indifferently well, proportion the body *thereafter*. *Peachment.*

Some three months since, or *thereabout*, She found me out. *Suckling.*

*There* have been that have delivered themselves from their ills by their good fortune or virtue. *Id.*

Dare to be true; nothing can need a lie; A fault which needs it must grow two *thereby*.

*Herbert.*

*There* are delivered in holy scripture many weighty arguments for this doctrine. *White.*

In human actions there are no degrees described, but a latitude is indulged. *Bishop Taylor.*

*Therewithal* the execrable act

On their late murdered king they aggravate.

*Daniel.*



What might his force have done being brought  
*thereto,*

When that already gave so much to do? *Id.*

*There* cannot in nature be a strength so great, as  
to make the least moveable to pass in an instant, or  
all together, through the least place.

*Digby on the Soul.*

'Tis vain to think that lasting which must end;

And when 'tis past not any part remains

*Thereof,* but the reward which virtue gains.

*Denham.*

Darkness *there* might well seem twilight here.

*Milton.*

Find a house to lodge a hundred and fifty persons,  
whereof twenty or *thereabouts* may be attendants.

*Id.*

If food were now before thee set,  
Wouldst thou not eat? *thereafter* as I like  
The giver.

*Id.*

All the earth

To thee and to thy race I give; as lords

Possess it, and all things that *therein* live. *Id.*

A larger form of speech were safer than this  
which punctually prefixeth a constant day *thereto.*

*Browne.*

That it is the appointment of God, might be argu-  
ment enough to persuade us *thereunto.*

*Tillotson.*

Your fury hardens me,

A guard *there;* seize her. *Dryden's Aurengzebe.*

After having well examined them, we shall *therein*  
find many charms. *Dryden's Dufresnoy.*

Children are chid for having failed in good man-  
ners, and have *thereupon* reproofs and precepts heaped  
upon them. *Loche.*

The leaves that spring *therefrom* grow white.

*Mortimer.*

He blushes, *therefore* he is guilty.

*Spectator.*

If the paper be placed beyond the focus, and then  
the red colour at the lens be alternately intercepted  
and let pass, the violet on the paper will not suffer  
any change *thereby.*

*Newton.*

Exiled by thee from earth to deepest hell,

In brazen bonds shall barbarous discord dwell;

Gigantic pride, pale terror, gloomy care,

And mad ambition shall attend her *there.* *Pope.*

Solon finding the people engaged in two violent  
factions, of the poor and the rich, and in great con-  
fusion *thereupon,* made due provisions for settling  
the balance of power. *Swift.*

The wrestlers sprinkled dust on their bodies to  
give better hold: the glory *therefore* was greater to  
conquer without powder. *West's Pindar.*

**THERESIENSTADT**, or **MARIEN THERE-  
SIENSTADT**, a large town of the south of Hun-  
gary, in the palatinate of Bacs. In fact it is an  
assemblage of villages, consisting of perhaps  
3000 cottages, inhabited by 22,000 inmates,  
partly of Servian, partly of Rascian descent.  
They depend for their support chiefly on the  
extensive town lands, the total extent of which  
is said to be 340 square miles. The town is  
open, but has large barracks, a Catholic church  
for the Servians, a Greek for the Rascians, and  
a Franciscan monastery for Catholics; these  
complete the list of its public buildings. *Ther-  
resienstadt* has a pretty active traffic in cattle,  
horses, wool, and hides.

**THERIACAL**, *adj.* Gr. *θηριακα*; Lat. *the-  
riaca*. Medicinal; physical.

The virtuous bezoar is taken from the beast that  
feedeth upon the mountains where there are *theriacal*  
herbs. *Bacon.*

**THERMÆ**, hot baths or bagnios. Luxury  
and extravagance were in nothing carried to  
such heights as in the thermæ of the Roman em-  
perors. Ammian complains that they were  
built to such an extent as to equal whole pro-  
vinces; from which Valesius would abate, by  
reading *piscinæ* instead of *provinciæ*. And yet,  
after all, the remains of some still standing are  
sufficient testimonies for Ammian's censure; and  
the accounts transmitted of their ornaments and  
furniture, such as being laid with precious stones  
(Seneca), set round with seats of solid silver  
(Pliny), with pipes and cisterns of the same met-  
al (Statius), add to, rather than take from, the  
censure. The most remarkable bagnios were  
those of Dioclesian and Caracalla at Rome, great  
part of which remain at this day; the lofty  
arches, stately pillars, variety of foreign marble,  
curious vaulting of the roofs, great number of  
spacious apartments, all attract the curiosity of  
the traveller. They had also their summer and  
winter baths. See **BATHING**.

**THERMÆ SELINUNTIÆ**, an ancient town of  
Sicily, near Selinus, famous for its hot baths;  
now called Sciacca. See **SCIACCA**.

**THERMÆUS SINUS**, a bay of Macedon, on  
the coast of Therna or Thessalonica, afterwards  
called Sinus Macedonicus.—Strabo.

**THERMIDOR**, the eleventh month in the  
Revolutionary French calendar. It begins on  
the 19th July, and ends on the 17th August.

**THERMODON**, a river of ancient Bœotia,  
near Tanagra, called also Hæmon.—Strabo 11.

**THERMODON** or **THERMODOON**, a river of Cap-  
padocia in the country of the Amazons; running  
into the Euxine Sea, near Themiscyra. It is  
now called Termeh.

**THERMOMETER**, *n.s.* } Fr. *thermome.*

**THERMOMETRICAL**, *adj.* } *tre*; Gr. *θερμο*  
and *μετρον*. An instrument for measuring the  
heat of the air, or of any matter: relating to the  
measure of heat.

The greatest heat is about two in the afternoon,  
when the sun is past the meridian, as is evident from  
the *thermometer*, or observations of the weather-glass.

*Browne.*

His heat raises the liquor in the *thermometrical*  
tubes. *Cheyne.*

**THERMOMETER**. This instrument was in-  
vented about the beginning of the seventeenth cen-  
tury; but, like many other useful inventions, it  
has been found impossible to ascertain to whom  
the honor of it belongs. Boerhaave ascribes it  
to Cornelius Drebbel of Alcmæer, his own coun-  
tryman. Fulgenzio attributes it to his master  
Paul Sarpi, the great oracle of the Venetian re-  
public; and Viviani gives the honor of it to Ga-  
lilæo. But all these are posthumous claims.  
Sanctorio claims this honor to himself; and his  
assertion is corroborated by Borelli and Mal-  
pighi, of the Florentine academy, whose par-  
tiality is not to be suspected in favor of a member  
of the Patavinian school. Perhaps the best way  
to reconcile these different claims would be to  
suppose that the thermometer was really invented  
by different persons about the same time.

A common thermometer consists of a tube  
terminated at one end by a bulb, and closed at  
the other. The bulb and part of the tube are

filled with a proper liquid, generally mercury, and a scale is applied, graduated into equal parts. Whenever this instrument is applied to bodies of the same temperature, the mercury being similarly expanded, indicates the same degree of heat.

In dividing the scale of a thermometer, the two fixed points usually resorted to are the freezing and boiling of water, which always takes place at the same temperature, when under the same atmospheric pressure. The intermediate part of the scale is divided into any convenient number of degrees; and it is obvious that all thermometers, thus constructed, will indicate the same degree of heat when exposed to the same temperature. In the centigrade thermometer this space is divided into 100°; the freezing of water being marked 0°, the boiling point 100°. In this country we use Fahrenheit's scale, of which the 0° is placed at 32° below the freezing of water, which, therefore, is marked 32°, and the boiling point 212°, the intermediate space being divided into 180°. Another scale is Reaumur's, the freezing point is 0°, the boiling point 80°. These are the principal thermometers used in Europe. It may be proper to state that the spirit of wine thermometer is usually employed for very low temperatures, as mercury may be frozen in the atmosphere; whilst mercury, on the contrary, is best calculated for high temperatures, as its point of ebullition is little short of a red heat.

The Royal Society, fully apprised of the importance of adjusting the fixed point of thermometers, appointed a committee of seven gentlemen to consider of the best method for this purpose; and their report is published in the *Phil. Trans.* vol. LXVII., part ii., article 37. They observed that, though the boiling point be placed so much higher on some of the thermometers now made than on others, yet this does not produce any considerable error in the observations of the weather, at least in this climate; for an error of 1° 30', in the position of the boiling point, will make an error only of half a degree in the position of 92°, and of not more than a quarter of a degree in the point of 62°. It is only in nice experiments, or in trying the heat of hot liquors, that this error in the boiling point can be of much importance. In adjusting the freezing as well as the boiling point, the quicksilver in the tube ought to be kept of the same heat as that in the ball. When the freezing point is placed at a considerable distance from the ball, the pounded ice should be piled to such a height above the ball that the error which can arise, from the quicksilver in the remaining part of the tube not being heated equally with that in the ball, shall be very small, or the observed point must be corrected on that account according to the following table:—

| Heat of Air. | Correction. |
|--------------|-------------|
| 42°          | ·00087      |
| 52           | ·00174      |
| 62           | ·00261      |
| 72           | ·00348      |
| 82           | ·00435      |

The correction in this table is expressed in 1000th parts of the distance between the freezing point and the surface of the ice: e.g. if the freezing point stands seven inches above the surface of the ice, and the heat of the room is 62°, the point of 32° should be placed  $7 \times 00261$ , or ·018 of an inch lower than the observed point. A diagonal scale will facilitate this correction. The committee observe that, in trying the heat of liquors, care should be taken that the quicksilver in the tube of the thermometer be heated to the same degree as that in the ball: or, if this cannot be done conveniently, the observed heat should be corrected on that account; for the manner of doing which, and a table calculated for this purpose, we must refer to their excellent report in the *Phil. Trans.*, vol. LXVII., part ii., article 37. With regard to the choice of tubes, they ought to be exactly cylindrical. But, though the diameter should vary a little, it is easy to manage that matter in the manner proposed by the abbé Nollet, by making a small portion of the quicksilver, e.g. as much as fills up an inch or half an inch, slide backward and forward in the tube; and thus to find the proportions of all its inequalities, and thence to adjust the divisions to a scale of the most perfect equality. The capillary tubes are preferable to others, because they require smaller bulbs, and they are also more sensible, and less brittle. The most convenient size for common experiments has the internal diameter about the fortieth or fiftieth of an inch, about nine inches long, and made of thin glass that the rise and fall of the mercury may be better seen. The next thing to be considered is of what number of degrees or divisions the scale ought to consist, and from what point it ought to commence. As the number of the divisions of the scale is an arbitrary matter, the scales which have been employed differ much from one another in this circumstance. Fahrenheit has made 180° between the freezing and boiling water point. Amontons made 73°, and sir Isaac Newton only 34°. There is, however, one general maxim, which ought to be observed: that such an arithmetical number should be chosen as can easily be divided and subdivided, and that the number of divisions should be so great that there shall seldom be occasion for fractions. The number eighty, chosen by Reaumur, answers extremely well in this respect, because it can be divided by several figures without leaving a remainder; but it is too small a number: the consequence of which is that the degrees are placed at too great a distance from one another, and fractions must therefore be often employed. We think therefore that 160 would have been a more convenient number. Fahrenheit's number 180 is large enough; but, when divided, its quotient soon becomes an odd number. As to the point at which the scale ought to commence, various opinions have been entertained. If we knew the beginning or lowest degree of heat, all philosophers would agree that the lowest point of the thermometer ought to be fixed there; but we know neither the lowest nor the highest degrees of heat; we observe only the intermediate parts. All that we can do then is to begin it at some invariable point, to which thermometers made in different places may easily be adjusted. If pos-



sible, too, it ought to be a point at which a natural well known body receives some remarkable change from the effects of heat or cold. Fahrenheit began his scale at the point at which snow and salt congeal. Kirwan proposes the freezing point of mercury. Sir Isaac Newton, Hales, and Reaumur, adopted the freezing point of water. The objection to Fahrenheit's lowest point is that it commences at an artificial cold never known in nature, and to which we cannot refer our feelings; for it is what few can ever experience. There would be several great advantages gained, we allow, by adopting the freezing point of mercury. It is the lowest degree of cold to which mercury can be applied as a measure; and it would render unnecessary the use of the signs plus and minus, and the extension of the scale below 0. But we object to it that it is not a point well known; for few, comparatively speaking, who use thermometers, can have an opportunity of seeing mercury congealed. As to the other advantage to be gained by adopting the freezing point of mercury, namely the abolition of negative numbers, we do not think it would counterbalance the advantage to be enjoyed by using a well known point. Besides, it may be asked, Is there not a propriety in using negative numbers to express the degree of cold, which is a negative thing? Heat and cold we can only judge of by our feelings: the point then at which the scale should commence ought to be a point which can form to us a standard of heat and cold; a point familiar to us, from being one of the most remarkable that occurs in nature, and therefore a point to which we can with most clearness and precision refer in our minds on all occasions. This is the freezing point of water chosen by sir Isaac Newton, which of all the general changes produced in nature by cold is the most remarkable. It is therefore the most convenient point for the thermometers to be used in the temperate and frigid zones; we may say over the globe, for even in the hottest countries of the torrid zone many of the mountains are perpetually covered with snow.

The principal thermometric scales in Europe are, as we have already stated, Fahrenheit's, which commences at the temperature produced by mixing snow and salt, and which is  $32^{\circ}$  below the freezing of water, so that the latter point is marked  $32^{\circ}$ , and the boiling point  $212^{\circ}$ , the intermediate space being divided into  $172^{\circ}$ ; Reaumur's, in which the zero is the freezing point, and  $80^{\circ}$  the boiling point; and the centigrade, in which the space between the freezing and boiling of water is divided into  $100^{\circ}$ .

Each degree of Fahrenheit's scale is equal to four-ninths of a degree on Reaumur's; if, therefore, the number of degrees on Fahrenheit's scale, above or below the freezing of water, be multiplied by four, and divided by nine, the quotient will be the corresponding degree of Reaumur.

|   |          |
|---|----------|
| Fahrenheit.   | Reaumur. |
| $68^{\circ} - 32^{\circ} = 36 \times 4 = 144 \div 9 = 16^{\circ}$ .   |          |
| $212^{\circ} - 32^{\circ} = 180 \times 4 = 720 \div 9 = 80^{\circ}$ . |          |

To reduce the degrees of Reaumur to those of Fahrenheit, they are to be multiplied by nine, and divided by four.

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Reaumur.

$$16^{\circ} \times 9 = 144 \div 4 = 36 + 32^{\circ} = 68.$$

$$80^{\circ} \times 9 = 720 \div 4 = 180 + 32^{\circ} = 212.$$

Every degree of Fahrenheit is equal to five-ninths of a degree on the centigrade scale; the reduction, therefore, is as follows:—

|  |             |
|--|-------------|
| Fahrenheit.  | Centigrade. |
| $212^{\circ} - 32 = 180 \times 5 = 900 \div 9 = 100^{\circ}$ . |             |

Centigrade.

$$100 \times 9 = 900 \div 5 = 180 \times 32 = 212^{\circ}.$$

M. Bellani has proved, by reference to direct experiment, that a mercurial thermometer made in the usual manner, and the freezing point of water marked on it from experiment, if it be laid aside awhile, and again plunged in melting ice, the mercury will stand higher than before; and that if it be put aside again, and then again tried, the mercury will be higher still, until, at the end of a certain time, a year or so, the effect of elevation will cease.

It was found, from numerous experiments, that the result was not influenced by the various qualities of the glass used in the instrument; by the more or less perfect exclusion of air from the bulb or tube; by the constant horizontal, perpendicular, or inverted position of the instrument; by the open or closed extremity; by the longer or shorter time of remaining in the ice; or by the compression of the surrounding ice. Neither was it found to be peculiar to mercurial thermometers, but was exhibited by alcohol thermometers, though in a less degree.

M. Bellani at last ascertained that the effect was due to a gradual and slow contraction of the glass after having been highly heated, which contraction, as long as it continued, diminished the bulk of the instrument, and consequently forced the fluid into the tube. This effect he illustrates in the following manner:—Take a Florence flask, or any similar thin glass vessel, such as a mattress with a long narrow neck, shortly after it has come from the glass furnace, it not having been annealed in the oven; introduce shot or sand into it till it almost sinks in water, seal it hermetically, and draw out one part of the neck until not more than a line in diameter, that part being about an inch in length; fasten a small basin on the top of the neck with wax, and then, putting the instrument in water of a certain temperature,  $40^{\circ}$  Fahrenheit, for instance, put weights in the cup till the surface of the water is at the middle of the narrow part of the neck; then lay the instrument aside for some days, or better still some weeks or months, and, after that time, again immerse it in the same water at the same temperature and pressure, and with the same weight; the instrument will now sink lower than before, in consequence of its diminished bulk from gradual contraction of the glass.

It was found that, although the effect was greatest after the glass had been rendered soft by heat, yet that it occurred also when the elevation of temperature had not extended nearly to the softening of the glass, and indeed more or less upon every rise of temperature. Hence two kinds of irregularity in thermometers arise from the same cause. The one is manifested soon after the formation of the instrument, increases to a certain

F.

degree, and then remains stationary: this may be rectified by elevating the scale of the instrument the required quantity. The other takes place at every change of temperature; it is small and scarcely perceptible, with small changes of temperature, but by considerable changes becomes very evident and important.

Singular consequences sometimes result from the influence of these changes. If two liquids be taken of different temperatures, a greater difference will be found between them, by trying the hot fluid, and then the cold fluid by the same thermometer, than what will appear to exist by trying the cold fluid first. Again, if a new thermometer be graduated by an old one preserved as a standard, although it may be made to agree with it, yet, after a while, the two will not accord; and if two old thermometers be taken that do agree, and the one be heated whilst the other remains unused, they will no longer indicate the same temperatures.

The reason now becomes evident, why alcohol thermometers are so much less affected in this manner than those filled with mercury. Alcohol expands several times more than mercury, so that an instrument constructed with it having a tube of the same diameter, and degrees of the same size, will require a bulb several times less than if mercury had been used. Hence, as the elevation is in proportion to the capacity of the bulb, independent of the liquid it contains, the alcohol thermometer will exhibit a much smaller effect than the mercurial instrument.

MM. A. de la Rive and F. Marcet have also investigated the elevation of the mercury in thermometers, which is due to the cause pointed out by Mr. Flaugergues, namely, the continued pressure of the air on its external surface: and by opening the top of the thermometer, by submitting the instrument to condensed or rare atmospheres, and by comparison with thermometers otherwise constructed, have abundantly proved the effect due to this power. These philosophers had occasion also to remark some curious effects due to the absorption and evolution of heat, by the expansion and condensation of gases, which however we cannot at this time further attend to, than by copying the conclusions at the end of the memoir.

1. That atmospheric pressure exerts an influence on the bulk of thermometer bulbs. 2. That in experiments, where this effect may influence the results, it is better to use thermometers open at the top. 3. That certainly cold is produced in making a vacuum by the air-pump, but in smaller quantity than was supposed. 4. That when gases enter an exhausted vessel, there is at first a production of cold, and then of heat. 5. That various modifications may render the cold produced at the moment of the entrance of air into a vacuum more intense.

Sig. Bellani has undertaken a series of experiments, to determine whether the air or vapor, the last portions of which are found to remain so obstinately in barometers and thermometers, is introduced with the mercury, or is a portion of that which originally occupied the tube before the introduction of the metal. The conclusion he comes to is, that it is always a portion of that

which previously adhered to the glass, and that mercury is utterly incapable of absorbing either air or moisture. The extraordinary way in which air and water is held as it were in a film over glass is insisted upon, and reference made to many authors in proof of it. The following, however, are more interesting, as being some of the facts he advances to prove that the mercury never contains either of these substances. Fill a barometer tube and boil it very carefully; then prepare a kind of funnel made of a small capillary tube, which will reach through the mercury in the barometer tube to the closed end, and is enlarged at top; let it be recently made, so as to be dry, and introduce it into the barometer tube; prepare some mercury by agitating it in a bottle with water and air, then drying its surface with bibulous paper, and afterwards passing it through paper cones three or four times into dry vessels; pour a little of this mercury into the funnel tube, and with a horse-hair or fine wire remove the air, so that the column may be continuous; then pour in so much of this prepared mercury as will fully displace the mercury that was boiled in the tube; afterwards remove the funnel tube, and put the barometer to its proper use. It will be found to stand exactly at the same height as before in the same circumstances; and if the mercury be now boiled in the tube, none of those bubbles will appear which arose on the first boiling; care being taken throughout that the inner surface of the tube has not been exposed to the air.

Perhaps an easier mode of making the same experiment is to make the barometer terminate at top in a bulb, which will hold more mercury than is required to fill the tube: then when it is boiled it need only be placed upright in a basin of common mercury, and, when inclined, the mercury will enter and replace that which was boiled in the instrument; the results will be as above.

An experiment proving the same thing may be made still more easily thus: fill a mercurial thermometer and boil it well; then heat it till nearly all the mercury is expelled, but preserve its open extremity under common mercury: the latter metal will enter as the instrument cools, and behave in every respect as the well-boiled mercury did.

If a bulb of a thermometer be suddenly squeezed between the finger and the thumb, the mercury will rise in the stem several degrees, and will again sink as quickly after the pressure is removed. To prevent any derangement from communication of heat, the hand may be covered with a thick glove. This is a very important fact, and it may be shown in a less exceptionable way:—let a mercurial thermometer, with a large bulb and a long stem, be first held upright, and then immediately inverted; between these two positions the column of mercury will descend through a visible space: thus proving that a variable pressure in the atmosphere, or mercury, will produce anomalies in the thermometer.

Mr. Breguet's thermometer consists of slips of two metals, unequally expanded by heat, twisted into a spiral: to the extremity of the spiral is fixed an index, which moves round a graduated circle, pointing out the temperature.



It is obvious that, when the spiral is heated, the index will move in one direction, and in another when the spiral is cooled, because it will twist or untwist itself according to the changes of temperature to which it is subjected. The two metals employed are silver and platinum; and in order to render the extreme points more fixed, and to prevent sudden starts, a slip of gold, the expansibility of which is intermediate between that of silver and platinum, is soldered between these two metals. This thermometer is more delicate than any mercurial thermometer whatever. It is even more delicate than an air thermometer. This spiral thermometer, and a mercurial one, were placed together under the receiver of an air pump. The temperature at the time of the experiment was  $66.2^{\circ}$ . The mercurial thermometer, when the air was pumped out, sunk  $3.6^{\circ}$ ; but the spiral thermometer fell  $41.4^{\circ}$ , and descended to  $24.8^{\circ}$  Fahrenheit.

The *differential thermometer*, invented by professor Leslie, consists of two tubes, each terminating in a small bulb of similar dimensions; a small portion of dark-colored fluid, formed of sulphuric acid tinged with carmine, having previously been introduced into one of the balls. The instrument is then fixed on a stand, and furnished with a graduated scale. When the column is equally pressed in opposite directions, the fluid will point at zero, and whatever heat may be applied to the whole instrument, provided both bulbs receive it in an equal degree, the fluid must remain at rest. But, if the one ball receives the slightest excess of temperature, the air which it contains will be proportionally expanded, and the column will be depressed with a force equal to the difference between the temperature of the two balls.

A *self-registering thermometer* is a most important instrument, and, as such, must not be passed unnoticed. It is employed to indicate the extreme changes that occur in the temperature of the air. Dr. Rutherford employed two thermometers. The one which marks the minimum is filled with alcohol; and the other, which indicates the maximum, is filled with quicksilver; and they are both attached to the same frame, or, what is still better, affixed to separate frames, placed nearly horizontal, or rather elevated about five degrees, to prevent the separation of the thread of liquid. The tubes have bores from the twenty-fifth to the fifteenth part of an inch wide, and include a minute tapered or conical piece of ivory, or of white or blue enamel, about half an inch long. This mark, having in either thermometer its base turned towards the bulbs, is drawn to the lowest point by the alcohol, which again freely passes it; but it is always pushed forward to the highest limit by the mercury, which afterwards leaves it.

Mr. Crichton has contrived a self-registering thermometer, somewhat similar to that of M. Breguet; consisting of two oblong slips of steel and zinc, firmly fixed together by their faces; so that the greater expansion or contraction of the zinc over those of the steel, by the same variations of temperature, causes a flexure of the compound bar. As this is secured to a board at one end, the whole flexure is exercised at the other,

on the short arm of a lever index, the free extremity of which moves along a graduated arc. The instrument is originally adjusted on a good mercurial thermometer; and the movements of the arm are registered by two fine wires, which are pushed before it, and left at the maximum deviation to the right or left of the last observed position or temperature.

M. Fourier has invented a new instrument which he calls a *thermometer of contact*. It consists of a conical vessel constructed of very thin iron, with the exception of the bottom, which is made of thin pliable skin; it is filled with mercury and has a thermometer, the bulb of which is immersed entirely in the mercury, and the scale has degrees of such magnitude that they may be divided into tenths. The skin must be preserved perfectly clean and never be overheated; it is better than any other similarly flexible substance, because of its superior conducting power. This instrument is to be accompanied by a support consisting of a block of marble; and any substance operated upon is to be in sheets or reduced to thin plates. When an experiment is to be made, the sheet, cloth, or thin plate, is to be placed upon the marble, both being at the temperature of the room; the conical vessel, with its contents, is to be heated on a stove or other hot body, until about  $46^{\circ}$  or  $47^{\circ}$  C.; and then being removed, at the moment it has fallen to  $45^{\circ}$ , it is to be placed on the substance to be tried; the time when it arrives at  $40^{\circ}$  is to be exactly noted by a watch, and then the temperature noted minute by minute for five minutes. If the experiment be repeated with the same substance on another part of the marble, exactly the same results will be obtained, provided the temperature of the place has not changed. If the experiments are to be made on rigid plates, then these are not to be placed directly upon the marble, but upon a mercurial cushion, made by confining mercury under a surface of skin.

If the substance first tried be replaced by another, and then the fall of temperature in a given time be noted, the variation will be found very sensible, however slight the difference between the substances; the addition of a single sheet of the finest paper makes a great difference in the effect. The slightest difference in the nature of the stuff is immediately indicated. If a piece of linen cloth be replaced by flannel, or by woollen cloth, or a thin piece of woollen cloth by a thick piece, not only are the differences produced very evident, but they can be obtained over and over again with the utmost constancy, care being taken that the pressure of the mercury upon the skin, and therefore upon the substance, be the same in all cases.

The same instrument also indicates the heat of contact of bodies. In such cases, after being heated as before-mentioned, it is to be placed on a thick mass of the substance to be tried, and the fall of temperature in a given time noted as before: striking effects were thus obtained. Being first applied to iron at the temperature of  $8^{\circ}$  C., and then upon a mass of stone, the difference at the end of the second minute was  $5^{\circ}$ . The differences are much greater when iron is compared with brick or wood. Although

the conducting powers thus obtained for different substances are only approximations, yet there are many bodies, as bricks, stones, wood, clothing, &c., for which these are quite sufficient.

Another still more delicate method of ascertaining the conducting power of bodies is then described, but it is also more difficult. Two vessels are used; the lower one is maintained at a constant temperature, as  $100^{\circ}$  C.; upon that is placed the substance to be tried, and upon that again the upper vessel. The lower part of the upper vessel is enclosed, and constitutes the bulb of an air thermometer; the upper part is retained at the temperature of ice; the air therefore in the thermometer is cooled by the ice and warmed by the lower heated vessel; the latter producing an effect greater or smaller according to the nature of the substance between it and the air-vessel; the temperature of the air and the indication upon the scale connected with it soon becomes permanent, and, as it is higher or lower, indicates the greater or less conducting power of the interposed substance. When the experiments are carefully made they accord with those of the former instrument, but are more delicate.

By means of these instruments M. Fourier was able to ascertain that many substances when put together, conducted heat differently, according to the order in which they were placed. Two pieces of cloth being put between the instrument and the marble, the order of substances traversed by the heat was skin, cloth—cloth, marble. After observing the effect a thin plate of copper was placed between the cloth and the marble; the fall of temperature was then slower than before; the copper was then placed between the pieces of cloth, and the cooling was as if no copper were present; then placing the copper beneath the skin of the instrument and above the cloth, so that the order was skin, copper, cloth, cloth, marble, the temperature diminished more rapidly than if no copper had been there: thus the interposition of the metal facilitated the transmission of heat from the skin to the cloth, but diminished the transmission from the cloth to the marble.

The chevalier Landriani has described in the *Giornale di Fisica*, &c., a method contrived and adopted by himself in the construction of very delicate thermometers; and, from his experience, he is induced to consider instruments made in his way much superior to the common mercurial thermometer.

The form of the instrument is nearly that of the common thermometer; but the tube is of extreme fineness, a quarter of a grain of mercury occupying in it a length of three, four, and even five inches. In order to blow a ball at the end of such a tube, it is found necessary to attach a condensing syringe to it, the elastic gum bottle not being sufficient for the purpose; and in forcing in the air when the end of the glass has been heated to produce the ball, great care must be taken that no moisture or oil enter the tube, as the smallest particle completely closes up its minute passage.

The ball and tube are then filled with alcohol in the usual manner; and, after this is done, the bore of the tube is to be expanded into two small

bulbs near to each other, and to what is to be the top of the instrument, or the instrument may be reversed; the ball may be considered the top, and the other extremity being turned round, may have the two bulbs blown on it so as to resemble a common form of the barometer; this being done, alcohol is to be introduced, until not only the ball and tube, but the lower bulb, and part of the upper are filled with it.

In these thermometers, one object was to avoid the injurious effect occasioned by the adhesion of the surface of the fluid in the tube with the glass; the surface of the fluid is therefore not regarded as any indication of the state of the instrument; it is always in the upper bulb, and is very little altered by any alteration of temperature; but a point is taken in the column of alcohol in the tube, by which to make observations, and this point is marked by a small cylinder of mercury; and in addition to the advantage thus obtained, of perfect freedom of motion, the column which, before from its minuteness was with difficulty visible, becomes readily distinguishable at the necessary point. The mercury is readily introduced into the tube of the instrument by warming it, and then introducing its extremity into the metal on cooling; it passes first into the bulbs, and may then be placed in any required part of what is to be the scale, and this being done the instrument is to be closed and graduated.

In this way thermometers have been made so delicately that with a ball of three lines and a half in diameter each degree, (of Reaumur) has been ten and twelve inches in length, which extension allows of a division to the four hundredth and even the six hundredth part of a degree, without affecting the accuracy of the instrument. In graduating it the principal points may be taken from a mercurial thermometer, and the division into equal parts adopted for the others.

Landriani enumerates some of the advantages this instrument has over common mercurial thermometers. It is more readily constructed, the adhesion of the mercury to the glass being obviated, and even the adhesion of the surface of the alcohol being of no consequence. Its material, the alcohol, has more fluidity and expansibility than mercury. In mercurial instruments the weight of the metal endangers the bulb, which being necessarily thin, is liable to accidents in a much greater degree than when filled with alcohol. Another important defect to which mercurial thermometers are liable, and from which these are very nearly free, is the expansion of the ball at the extremity by the weight of the column of mercury in the tube; and this column varying with the temperature, and its pressure by position, errors of a very changeable nature are introduced. Thus, with a mercurial thermometer having a ball of four or five lines in diameter, and degrees of four or five lines in length, the temperature indicated is not the same in a vertical and in a horizontal position.

Landriani proposes also the use of his instrument in determining fractions of degrees which cannot be observed by the common thermometer. This is done by graduating the instrument into degrees according to common thermometers, but not affixing numbers to them; and then by dis-



placing the mercury from part to part, the scale may be made to commence at any given degree. If the mercury be made to descend into the ball of the instrument, or to rise into the bulb, and the instrument be placed horizontally, the temperature of the whole may then be brought to any required point; and that done, by placing the thermometer vertically with the ball upwards or downwards as required, the mercury is made to enter the tube, and passes over degrees graduated upwards or downwards from the temperature to which the whole instrument was brought.

M. Landriani, in a succeeding number of the *Giornale di Fisica*, has proposed these thermometers to be used in meteorological observations as self-registering thermometers, and they appear very applicable to this purpose. They are to be constructed as before described, except that besides the cylinder of mercury, which is the indicator of temperature, there is to be another portion of mercury within, either the ball or the first bulb, as the instrument is to measure the extreme point of heat or of cold.

The use is as follows:—Supposing it put by, the indicating cylinder of mercury will, of course, be somewhere in the stem, and the other portion of metal should be in the ball; if it be required to mark the lowest degree of cold during the night, it is to be placed upright with the ball upwards, and the point where the indicator stands noted; the mercury in the ball will rest just over the orifice of the tube, and will enter it on any descent of the column beneath; if the temperature diminishes, however, that column will ascend, the spirit in the ball contracting; but, whenever it begins to expand again, the mercury in the ball will descend, dividing the alcohol above and below it. When the instrument is next observed, therefore, nothing more is required to ascertain the extreme cold of the night than to mark the numbers of degrees between the two cylinders of mercury, and these, subtracted from the numbers of degrees between the indicator, and the ball or the mercury at the first observation, give the degrees of cold.

In ascertaining the extreme heat, M. Landriani proposed to use another thermometer with the ball downward, when the first bulb will become the receptacle for the registering portion of mercury, and the difference between the two columns of alcohol included between the indicator and the bulb at the first observation, and the indicator and registering mercury at the second, will give the extreme heat of the instrument between the two observations.

It would be easy, however, to make one instrument answer both purposes, and one which M. Landriani depicts is very fit for them; the ball is above, and the tube is bent just above the bulbs, so that they shall also stand perpendicularly and rising upwards from the tube. If then a small portion of mercury be appropriated to the ball, and another to the first bulb, the former will indicate the lowest temperature in the absence of the observer, and the latter the highest, the indicator of course always being present.

The thermometers above described are very limited in their extent; they indeed point out to

the lowest degrees of heat which are commonly observed even in cold climates, but they by no means reach to those degrees of heat which are very familiar to us. The mercurial thermometer extends no farther than to 600 of Fahrenheit's scale, the heat of boiling mercury; but we are sure that the heat of solid bodies, when heated to ignition, or till they emit light, far exceeds the heat of boiling mercury. To remedy this defect, Sir Isaac Newton, whose genius overcame those obstacles which ordinary minds could not approach, attempted by an ingenious experiment to extend the scale to any degree required. Having heated a mass of iron red hot, and exposed it to the cold air, he observed the time which elapsed till it became cold, or of the same temperature with the air; and, when the heat so far decreased that he could apply some known measure (as a thermometer) to it, he observed the degrees of heat lost in given times, and thence drew the general conclusion, that the quantities of heat lost in given small spaces are always proportional to the heat remaining in the body, reckoning the heat to be the excess by which it is warmer than the ambient air. So that taking the number of minutes which it took to cool after it came to a determined point in an arithmetical progression, the decrements of the heat of iron would be continually proportional. Having by this proportion found out the decrements of heat in a given time, after it came to a known point, it was easy, by carrying upwards the same proportion to the beginning of its cooling, to determine the greatest heat which the body had acquired. This proportion of Sir Isaac's was found by Dr. Martine to be somewhat inaccurate. The heat of a cooling body does not decrease exactly in proportion to that which the body retains. As the result of many observations, he found that two kinds of proportion took place, an arithmetical as well as the geometrical proportion which Sir Isaac Newton had adopted; namely, that the decrements of heat were partly proportional to the times (that is, that quantities of heat are lost in equal times), as well as partly in proportion to the remaining heat; and that if these two are added together the rule will be sufficiently accurate. By the geometrical proportion which Sir Isaac Newton adopted, he discovered the heat of metals red hot or in fusion.

The method above-mentioned, so successfully pursued by Sir Isaac, was sufficient to form a scale of high degrees of heat, but was not convenient for practical purposes. Accordingly the ingenious Mr. Josiah Wedgwood, who is well known for his great improvement in the art of pottery, applied himself in order to discover a thermometer which might be easily managed. After many experiments recorded in the *Philosophical Transactions*, but which it is unnecessary to detail here, he invented a thermometer which marks with much precision the different degrees of ignition, from a dull red heat visible in the dark to the heat of an air furnace. This thermometer is extremely simple. It consists of two rulers fixed upon a smooth flat plate, a little farther asunder at the one end than the other, leaving an open longitudinal space between them.

Small pieces of alum and clay mixed together are made of such a size as just to enter at the wide end; they are then heated in the fire along with the body whose heat we wish to determine. The fire, according to the degree of heat it contains, diminishes or contracts the earthy body, so that, when applied to the wide end of the gage, it will slide on towards the narrow end, less or more according to the degree of heat to which it has been exposed.

Mr. Wedgwood found that ten cwt. of the porcelain clay of Cornwall required all the earth that was afforded by five cwt. of alum. But, as the clay or alum differs in quality, the proportion will also differ. There can now, however, be no difficulty in making thermometers of this kind, as common clay answers the purpose very well, and alum earth can easily be procured. Those who wish to see a more particular account of this subject may peruse Mr. Wedgwood's papers in the Philosophical Transactions for 1782, 1784, and 1786. As Mr. Wedgwood's thermometer begins at the lowest degree of ignition, and Fahrenheit's goes no higher than the boiling point of mercury, Mr. Wedgwood continued to fill up the interval of the scale by using a piece of silver instead of his common thermometer pieces; and in this way he has found that 130° of Fahrenheit are equal to one of his. He has accordingly, by observing this proportion, continued Fahrenheit's scale to the top of his own. We are now, therefore, enabled to give a scale of heat from the highest degree of heat produced by an air furnace to the greatest degree of cold hitherto known, which was produced at Hudson's Bay in December 1784, by a mixture of vitriolic acid and snow. Of the remarkable degrees between these extreme points we shall lay before our readers

| A SCALE.   | Fahren-<br>heit's<br>scale. | Wedg-<br>wood's<br>scale. |
|--|-----------------------------|---------------------------|
| Extremity of Wedgwood's scale                        | 32277°                      | 240°                      |
| Greatest heat of his small air-furnace               | 21877                       | 160                       |
| Cast iron melts                                      | 17977                       | 130                       |
| Greatest heat of a common smith's forge              | 17327                       | 125                       |
| Welding heat of iron, greatest                       | 13427                       | 95                        |
| least  | 12777                       | 90                        |
| Fine gold melts                                      | 5237                        | 32                        |
| Fine silver melts                                    | 4717                        | 28                        |
| Swedish copper melts                                 | 4587                        | 27                        |
| Brass melts  | 3807                        | 21                        |
| Heat by which enamel colors are burnt on             | 1857                        | 6                         |
| Red-heat fully visible in day-light                  | 1077                        | 0                         |
| Red-heat fully visible in the dark                   | 947                         | 1                         |
| MERCURY BOILS, also linseed and other expressed oils | 600                         |                           |
| Oil of turpentine boils                              | 560                         |                           |
| Sulphuric acid boils                                 | 546                         |                           |
| Lead melts   | 540                         |                           |
| Bismuth melts  | 460                         |                           |
| Tin melts  | 408                         |                           |
| Sulphur melts  | 244                         |                           |
| Nitrous acid boils                                   | 242                         |                           |
| Cows' milk boils                                     | 213                         |                           |
| WATER BOILS  | 212                         |                           |

|   | Fahrenheit's<br>scale. |
|---|------------------------|
| Brandy boils  | 190                    |
| Alcohol boils   | 174                    |
| Serum of blood and white of eggs harden   | 156                    |
| Bees' wax melts   | 142                    |
| Heat of the air near Senegal sometimes  | 111                    |
| Hens hatch eggs about   | 108                    |
| Heat of birds from  | 103 to 111             |
| Heat of domestic quadrupeds from  | 100 to 103             |
| Heat of the human body  | 92 to 99               |
| Heat of a swarm of bees   | 97                     |
| Heat of the ocean under the equator   | 80                     |
| Butter melts  | 74                     |
| Sulphuric acid of the specific gravity of 1780 freezes at                           | 45                     |
| Oil of olives begins to congeal   | 43                     |
| Heat of hedgehogs and marmots in a torpid state                                     | 39½                    |
| WATER FREEZES and snow melts  | 32                     |
| Milk freezes  | 30                     |
| Common vinegar freezes  | 28                     |
| Human blood freezes   | 25                     |
| Strong wines freeze   | 20                     |
| A mixture of one part of alcohol and three parts of water freezes                   | 7                      |
| A mixture of snow and salt freezes  | 0 to 4                 |
| Brandy, or a mixture of equal parts of alcohol and water freezes                    | —7                     |
| Spirit of wine in Reaumur's thermometer froze at Torneo                             | —34                    |
| MERCURY FREEZES   | —39 or 40              |
| Cold produced by Mr. Macnab at Hudson's Bay by a mixture of sulphuric acid and snow | —69                    |

**THERMOPYLÆ**, in ancient geography, a narrow pass or defile, between the Sinus Maliacus on the east, and steep mountains, reaching to Oeta, made dreadful by impassable woods, on the west; leading from Thessaly to Locris and Bœotia. These mountains divide Greece in the middle, in the same manner as the Appennines do Italy; forming one continued ridge from Leucate on the west to the sea on the east, with thickets and rocks interspersed; so that persons even prepared for travelling, much less an army encumbered with baggage, cannot easily find a commodious passage. In the valley verging towards the Sinus Maliacus the road is only sixty paces broad; the only military way for an army to pass if not obstructed by an enemy; and therefore the place is called Pylæ, and by others, on account of its hot water, Thermopylæ. It is famous for the brave stand made by Leonidas and 300 Spartans against the whole army of Persia; and also for the Amphylæones, the common council or states-general of Greece, assembling there twice a year, in spring and autumn.

**THERMOSCOPE**, *n. s.* Fr. *thermoscope*; Gr. *θερμος* and *σκοπεω*. An instrument by which the degrees of heat are discovered; a thermometer.

By the trial of the *thermoscope*, fishes have more heat than the element which they swim in.

*Arbuthnot on Aliments.*



**THERMUM**, an ancient town of Ætolia, on the Evenus. Polyb. 5.

**THERO**, or **THERON**, tyrant of Agrigentum, but no tyrant in the modern sense. See **AGRIGENTUM**, **CARTHAGE**, and **SYRACUSE**.

**THERSANDER**, a son of Polynices, and grandson of Œdipus, king of Thebes. He went with the Greeks to the Trojan war, and was killed by Telephus. Virg. *Æn.* v.

**THESEA**, in antiquity, feasts celebrated by the Athenians in honor of Theseus, consisting of sports and games, with mirth and banquets. Such as were poor and unable to contribute to them were entertained at the public expense.

**THESEIDÆ**, a name given the Athenians from Theseus. Virg. *Georg.* ii. 212.

**THESEUS**, a famous hero of antiquity, ranked among the demi-gods. He was the son of Ægeus king of Athens. He threw Sciron, a cruel robber, down a precipice; fastened Procrustes tyrant of Attica to a bending pine, which, being let loose, tore him asunder; killed the Minotaur kept in the labyrinth by king Minos, in Crete; and by the assistance of that prince's daughter, Ariadne, who gave him a clue, escaped out of that labyrinth, and sailed with his deliverer to the isle of Naxos, where he had the ingratitude to leave her. Theseus afterwards overcame the Centaurs, subdued the Thebans, and defeated the Amazons. He assisted his friend Pirithous in his expedition to hell to carry off Proserpine; but was imprisoned by Pluto, till he was released by Hercules. He also established the Isthmian games, in honor of Neptune: united the twelve cities of Attica; and founded a republic there, 1236 B. C. Some time after, taking a voyage into Epirus, he was seized by Aldonius king of the Molossians; meanwhile Menestheus rendered himself master of Athens. But at length Theseus being released from prison, retired to Scyros, where king Lycomedes caused him to be thrown from the top of a rock. Theseus had several wives; the first of whom was the beautiful Helena; the second Hippolyte, queen of the Amazons, by whom he had Hippolytus; and the last Phædra, sister to Ariadne, who punished him for his infidelity to her sister, by her incestuous passion for his son Hippolytus. See **ÆGEUS**, **ARIADNE**, **HIPPOLYTUS**, and **MINOS**.

**THE'SIS**, *n.s.* Fr. *these*; Gr. *θεσις*. A position; something laid down, affirmatively or negatively.

The truth of what you here lay down,  
By some example should be shewn.  
An honest but a simple pair,  
May serve to make this *thesis* clear.

*Prior.*

**THESIUM**, base fluellin, in botany, a genus of plants belonging to the class of pentandria, and order of monogynia. The calyx is monophyllous, with the stamina inserted into it: there is only one seed, which is inferior. There are seventeen species, one of which is a British plant, viz. *T. linophyllum*, or bastard toad flax. It has a foliaceous panicle, with linear leaves, and flowers in June and July.

**THESPIA**, an ancient town of Bœotia, destroyed by the Thebans. See **THEBES**.

**THESPIS**, a famous Greek tragic poet, and the first representer of tragedy at Athens. He carried

his troop from village to village in a waggon, from which they performed their pieces. Alcestis was the first tragedy they performed at Athens, 536 B. C. See **THEATRE**.

**THESPIUS**, king of Thespia, in Bœotia, who had fifty daughters, all of whom Hercules got with child, of sons each, in one night.

**THESPROTIA**, an ancient country of Epirus, on the sea-coast, on the west of Ambracia; famous for its oracle of Dodona. It was seated between the Acheron and the Cocytus. Homer.

**THESSALONICA**, the daughter of Philip II. king of Macedon, and sister of Alexander the Great. She was married to Cassander, and bore him three sons, Philip IV., Antipater, and Alexander V., but she was murdered by her son Antipater. See **MACEDON**.

**THESSALONICA**, a city of Macedonia, so named from the above princess, being anciently called Therma. It was once very powerful, and early received the Christian faith. It is a city of importance, and now called Salonichi.

**THESSALUS**, a son of Hercules and Caliope, the daughter of Euryphilus, who settled in Thessaly and gave name to it. Also a celebrated physician of Lydia, who flourished at Rome, in the reign of Nero.

**THESSALY**, a country of Greece, whose boundaries have been different at different periods. It was bounded on the south by the southern parts of Greece, or Græcia Propria; east by the Ægean; north by Macedonia and Mygdonia; and west by Illyricum and Epirus. It was generally divided into four provinces, Thessaliotis, Pelasgiotis, Istiæotis, and Phthiotis, to which some add Magnesia. It has been severally called Æmonia, Pelasgicum, Argos, Hellas, Argeia, Dryopis, Pelasgia, Pyrrhæa, &c. The name of Thessaly is derived from Thessalus, its first monarch. Thessaly is famous for a deluge which happened there in the age of Deucalion. Its mountains and cities are also celebrated, such as Olympus, Pelion, Ossa, Larissa, &c. The Argonauts were partly natives of Thessaly. The inhabitants of the country passed for a treacherous nation, so that false money was called Thessalian coin, and a perfidious action a Thessalian deceit. Thessaly was originally governed by kings till it became subject to the Macedonian monarchs. The cavalry was universally esteemed, and the people were superstitious and addicted to the study of magic. Lucan. 6. v. 438, &c.; Dionys. 219; Cart. 3. c. 2; Ælian, V. H. 3. c. 1; Paus. 4. c. 36. l. 10. c. 1; Mela, 2. c. 3; Justin 7. c. 6; Diod. 4. Thessaly is now called Janna, a province of European Turkey, bounded by Macedonia on the north, by the Archipelago on the east, by Achaia or Livadia on the south, and by Epirus on the west.

**THESTIA**, a town of Ætolia, between the Evenus and Achelous—Polyb. 5.

**THETIS**, in Pagan mythology, the wife of Oceanus, and the mother of Nereus and Doris, who were married to each other; and from this marriage sprung the nymphs of the earth and sea. Among the sea nymphs there was one named Thetis the Younger, who excelled all the rest in beauty, and for whom Jupiter conceived

such a passion, that he resolved to espouse her : but being informed by the destinies, that she would bring forth a son who would rise above his father, he married her to Peleus. To their nuptials all the gods and goddesses were invited except Discord, who, to be revenged for this contempt, threw a golden apple into the assembly, on which was engraven, For the fairest. Juno, Pallas, and Venus, disputed for this apple ; but Paris, being chosen to decide the difference, adjudged it to Venus. From this marriage of Thetis and Peleus sprung Achilles.

THETFORD, a market town of Norfolk and Suffolk, situated in a pleasant open country on the Ouse, at its confluence with the Thet. The greater part of the town is in Norfolk, but part in Suffolk. The principal street, named Bridge Street, is in the road from London to Norwich.

Thetford was once a place of great note, and the ruins of ecclesiastical and other buildings strongly remind the visitor of ancient splendor. It had at one period twenty churches, and eight monasteries, besides other religious and charitable foundations ; in consequence of which it obtained the epithets of Hierapolis and Monachopolis. But of these the names only of some remain, and of others only bare dilapidated walls. Three of the churches are preserved, St. Peter's and St. Cuthbert's on the Norfolk side of the town, and St. Mary the Less on the Suffolk side. St. Peter's, commonly called the black church, from its being built chiefly of flint, consists of a chancel, nave, two aisles, and a tower ; the latter was rebuilt in 1789. The battlements on the south side, and the buttresses are decorated with ornaments, and large letters, inlaid in the flint-work. Some of the walls remain, with buttresses, windows, &c., of the ancient nunnery. This was founded by Uvius, the first abbot of St. Edmund's Bury, in the reign of king Canute. The conventual church was lately converted into a barn. Of the priory or abbey founded by Roger Bigod, for monks of the Cluniac order, in the year 1104, the ancient gateway, with parts of the church, &c., still remain. The monastery was suppressed in the year 1540. It had been the burial place of several noble families, who had borne the title of earls of Norfolk, and also contained numerous monuments of the Bigods, Mowbrays, and Howards. After the dissolution, many of the mortuary remains were removed to Framlingham.

The site of St. Austin's priory is known by the name of the Friar's Close. Of the monastery of St. Sepulchre, which was founded in the year 1139, by William, earl of Warren and Surrey, there are also some remains ; but here again the church has been converted in a barn. The site is called Canons. Of four other religious houses no vestiges remain. At the eastern extremity of the town are some considerable remains of fortifications, with lofty banks and deep ditches. They seem to have been the work of the early kings of East Anglia ; there is also a Norman keep. The mount is about 100 feet in height, and the circumference at the base 984. Its slope is extremely steep. East of the mount is a large area or parade. The principal building in the modern town is the guildhall, where

the Lent assizes for the county are held. The old guildhall or council-house being in a dilapidated condition, the present council-chamber and apartment for the juries were erected by Sir Joseph Williamson, knight, one of the principal secretaries of state to king Charles II. The grammar-school is on the Suffolk side of the river, near St. Mary's church, and was founded by king James I. in consequence of a bequest by Sir Richard Fulmerstone, in 1566. The town also contains a county jail, bridewell, workhouse, a hospital sufficiently endowed for the maintenance of a preacher, a school-master, usher, &c. ; and various alms-houses and other charitable donations. The Ouse is navigable up to the town.

Thetford is a very ancient burgh ; but its charter of incorporation, by which it is still governed, was granted by queen Elizabeth in 1573. The corporation consists of a mayor, ten aldermen, twenty common council-men, a recorder, town-clerk, sword-bearer, and two serjeants at mace. The town sends two members to parliament, and has been honored with the presence of many of our sovereigns, particularly Henry I. and Henry II. Several charters, granted by the former, bear date at Thetford. King James I. made this one of his hunting seats ; and the palace is still known by the name of the king's house. During the heptarchy, Thetford formed the metropolis of the kingdom of the East Angles, and in the twelfth century was the see of a bishop. It had then also a mint, which has produced a great number of Anglo-Saxon coins. The chief magistrate found here at the Norman conquest was styled a consul. In the vicinity is a mineral spring. Various extraneous fossils are also found here. The celebrated Thomas Paine was born here. Market on Saturday and two annual fairs. Twenty-nine miles south-west of Norwich, and eighty N. N. E. of London.

THEVENOT (Melchisedec), librarian to the king of France, and a celebrated writer of travels, was born at Paris in 1621. He laid down rules, and invented an instrument, for finding the longitude, and the declination of the needle, and assisted at a conclave held on the death of pope Innocent X., and was the French envoy at Genoa. He died in October 1692, aged seventy-one. His *Travels into the Levant*, &c., were published in English, in 1681, fol. ; and in French at Paris, in 1663, fol. He wrote also *L'Art de Nager*, the Art of Swimming, 12mo. 1696.

THEVENOT (John), another celebrated traveller, who travelled in Asia, and published an account of his travels, in 3 vols. 4to. and in 5 vols. 12mo. He died in 1667.

THEURGY, in ancient seperstition, was that sacred part of magic sometimes called white magic, or the white art, in opposition to necromancy, or the black art. The word is formed from *θεος*, God, and *εργον*, work ; q. d. the art of doing divine things, or things which God alone can do : or the power of working extraordinary and supernatural things, by invoking the names of God, saints, angels, &c. Accordingly, those who have written of magic in general, divide it into three parts : the first whereof is called theur-



gy, as operating by divine or celestial means; the second, natural magic, performed by the powers of nature; and the third, comprehending necromancy, sorcery, and witchcraft or magic, performed by the assistance of dæmons or departed men. See **MAGIC**.

**THEW**, *n. s.* } Sax. *þeap*. Quality; man-

**THEW'ED**, *adj.* } ners; customs; habit of life; behaviour: in Shakspeare, it seems to signify brawn or bulk: thewed is accustomed; educated. Obsolete.

Home report these happy news,  
For well yee worthy been for worth and gentle thewes. *Spenser.*

But he was wise, and wary of her will,  
And ever held his hand upon his heart;  
Yet would not seem so rude, and thewed in ill,  
As to despise so courteous seeming part. *Id.*

Nature crescent does not grow alone  
In thews and bulk; but, as this temple waxes,  
The inward service of the mind and soul  
Grows wide withal. *Shakspeare. Hamlet.*

Will you tell me how to chuse a man? Care I for the limbs, the thews, the stature, bulk, and big semblance of a man? give me the spirit, master Shallow. *Shakspeare.*

**THEY**. Sax. *þu*. Pronoun, in the oblique case *them*, the plural of *he* or *she*; *this* or *that*: used also indefinitely like the Fr. *on dit*. The men; the women; the persons. Themselves is the reciprocal pronoun.

Whatsoever evil befalleth in that, *themselves* have made *themselves* worthy to suffer it. *Hooker.*

They are in a most warlike preparation. *Shakspeare. Coriolanus.*

Why do you keep alone?  
Of sorriest fancies your companions making,  
Using those thoughts, which should indeed have died

With *them* they think on. *Id. Macbeth.*

They eat on beds of silk and gold,  
At ivory tables, or wood sold  
Dearer than it. *Ben Jonson's Catiline.*

The materials of *them* were not from any herb. *Wilkins.*

Such things as in *themselves* are equally true and certain, may not yet be capable of the same kind or degree of evidence as to us. *Id.*

They open to *themselves* at length the way. *Milton.*  
There, as they say, perpetual night is found  
In silence brooding on the unhappy ground. *Dryden.*

'Tis remarkable that *they*  
Talk most who have the least to say. *Prior.*

The flowers she wore along the day,  
And ev'ry nymph and shepherd said,  
That in her hair *they* looked more gay  
Than growing in their native bed. *Id.*

Waken children out of sleep with a low call, and give them kind usage till *they* come perfectly to *themselves*. *Locke.*

**THICK**, *adj., adv. & n. s.* } Sax. *þicce*; Belg.  
**THICK'EN**, *v. a. & v. n.* } *dicke*; Isl. *thickur*;  
**THICK'ET**, *n. s.* } Danish *syk*; Teut.  
**THICK'LY**, *adv.* } *dicke*. Not thin;  
**THICK'NESS**, *n. s.* } dense; coarse;  
**THICK'SCULLED**, *adj.* } gross; not rare;  
**THICK'SET**, } or clear; close;  
**THICK'SKIN**, *n. s.* } hence frequent:

as an adverb frequently; fast; closely; to a great depth: as a noun substantive the thickest part; a thicket: to thicken is to make thick or close; condense; strengthen; make closer: to

grow thick, concrete or close: the adverb and noun substantive following correspond with thick, adjective: thicksculled is dull; stupid: thickset, closely planted: thickskin, a coarse gross or stupid man.

Thou art waxen fat; thou art grown thick, covered with fatness. *Deut. xxxii. 15.*

My little finger shall be *thicker* than his loins.

*1 Kings xii.*

The people were gathered *thick* together.

*Luke xi. 29*

It brought them to a hollow cave,  
Amid the *thickest* woods. *Spenser.*

Achimetes having with a mine suddenly blown up a great part of the wall of the Spanish station, in the *thick* of the dust and smoak presently entered his men. *Knolles.*

The shallowest *thickskin* of that barren sort,  
Who Pyramus presented in their sport,  
Forsook his scene, and entered in a brake.

*Shakspeare.*

'Tis a shrewd doubt, though it be but a dream;

And this may help to *thicken* other proofs,  
That do demonstrate thinly. *Id. Othello.*

Why hast thou lost the fresh blood in thy cheeks,  
And given my treasures and my rights of thee  
To *thick-eyed* musing and cursed melancholy?

*Shakspeare.*

Speaking *thick*, which nature made his blemish,  
Became the accents of the valiant,

To seem like him. *Id. Henry IV.*

God caused the wind to blow, to dry up the abundant slime of the earth, make the land more firm, and cleanse the air of *thick* vapours and unwholesome mists. *R. leigh.*

Poll a tree, and cover it some *thickness* with clay on the top, and see what it will put forth.

*Bacon's Natural History.*

It tasted a little of the wax, which in a pomegranate, or some such *thick-coated* fruit, it would not.

*Bacon.*

Mists and rotten fogs

Hang in the gloomy *thicks*, and make unsteadfast bogs. *Drayton.*

Favours came *thick* upon him, liker main showers than sprinkling drops; he was knighted, made gentleman of the king's bedchamber, and an annual pension given him. *Wotton.*

This being once a week, came too *thick* and too often about. *Spelman.*

'Tis some disaster,  
Or else he would not send so *thick*.

*Denham's Sophy.*

Through perils both of wind and limb,  
Through *thick* and thin she followed him. *Hudibras.*

His pills as *thick* as handgranados flew,  
And where they fell as certainly they slew.

*Roscommon.*

Mending cracked receivers, having *thickly* overlaid them with diachylon, we could not perceive leaks.

*Boyle.*

In the darkened room, against the hole at which the light entered, I could easily see through the whole *thickness* of my hand the motions of a body placed beyond it. *Id.*

A person found in himself, being at some times subject to a *thickness* of hearing, the like effect.

*Holder.*

A fermentation makes all the wine in the vessel *thick* or foul; but, when that is past, it grows clear of itself. *Temple.*

They're pleased to hear their *thick-sculled* judges cry,

Well moved! oh finely said!

*Dryden.*

His eye-balls glare with fire, suffused with blood,  
His neck shoots up a *thicket* thorny wood ;  
His bristled back a trench impaled appears,  
And stands erected like a field of spears. *Id.*

When first the down appears upon his chin,  
For a small sum to swear through *thick* and thin. *Id.*

I hear the trampling of *thick* beating feet ;  
This way they move. *Id. Don Sebastian.*

The press of people *thickens* to the court,  
The impatient crowd devouring the report. *Dryden.*

Not *thicker* billows beat the Libyan main,  
Nor *thicker* harvests on rich Hermus rise,  
Than stand these troops. *Id. Æneid.*  
They came *thick* and threefold for a time, till one  
experienced stager discovered the plot. *L'Estrange's Fables.*

*Thick*-leaved weeds amongst the grass will need  
more drying than ordinary grass. *Mortimer's Husbandry.*

Bring it near some *thick*-headed tree. *Mortimer.*  
The world is so *thickset* with the numerous produc-  
tions of the creatures, that besides the apparent  
beauty of things viewed by all, there are those secret  
graces in every part of nature, which some few alone  
have the skill to discern. *Grew.*

He saw the crowd *thickening*, and desired to know  
how many there were. *Tatler.*

A little plat of ground *thick* sown is better than  
a great field which lies fallow. *Norris's Miscellanies.*

Encumbered in the mud, their oars divide,  
With heavy strokes, the *thick* unwieldy tide. *Addison.*

The combat *thickens*, like the storm that flies  
From westward when the showery scuds arise,  
Or pattering hail comes pouring on the main,  
When Jupiter descends in hardened rain. *Id.*

Objects of pain or pleasure do not lie *thick* enough  
together in life, to keep the soul in constant action. *Id.*

The banks of the river and the *thickness* of the  
shades drew into them all the birds of the country. *Id.*

Water stopt gives birth  
To grass and plants, and *thickens* into earth. *Prior.*

Waters evaporated and mounted up into the air,  
*thicken* and cool it. *Woodward's Natural History.*

The white of an egg gradually dissolves by heat  
exceeding a little the heat of a human body ; a  
greater degree of heat will *thicken* it into a white,  
dark-coloured, dry, viscous mass. *Arbuthnot on Aliments.*

To warm milk pour spirits of nitre, the milk pre-  
sently will become *thicker* than it was. *Id.*

Diseases imagined to come from the *thickness* of  
blood, come often from the contrary cause. *Id.*

If you apply it *thick* spread, it will eat to the  
bone. *Wiseman.*

What you write is printed in large letters ; other-  
wise, between the weakness of my eyes and *thickness*  
of hearing, I should lose the greatest pleasure. *Swift.*

**THICK'ET**, *n. s.* Sax. *ðicceru*. A close  
knot or tuft of trees ; a close wood or copse.

I drew you hither  
Into the chiefest *thicket* of the park. *Shakspeare.*

Chus, or any of his, could not in haste creep  
through those desert regions, which the length of  
one hundred and thirty years after the flood had for-  
tified with *thickets*, and permitted every bush and  
briar, reed and tree, to join themselves into one main  
body and forest. *Raleigh.*

Within a *thicket* I reposed ; and found  
Let fall from heaven a sleep interminate. *Chapman.*

How often, from the steep  
Of echoing hill, or *thicket*, have we heard  
Celestial voices, to the midnight air,  
Sole, or responsive, each to other's note,  
Singing their great Creator. *Milton.*

Now Leda's twins  
Their trembling lances brandished at the foe ;  
Nor had they missed, but he to *thickets* fled  
Concealed from aiming spears, not pensive to the  
steed. *Dryden.*

I've known young Juba rise before the sun,  
To beat the *thicket* where the tyger slept,  
Or seek the lion in his dreadful haunts. *Addison's Cato.*

**THICKNESSE** (Philip), born in 1720, was  
the son of a clergyman, and entered in the army  
when young, and served in the West Indies ;  
on his return to England he obtained a captain's  
commission. He then married a lady of French  
extraction, expecting an ample fortune ; but his  
views were disappointed, and becoming a wi-  
dower, entered again into matrimony with lady  
Elizabeth Touchet, heiress of the ancient barony  
of Audley. Her fortune enabled him to purchase  
the lieutenant governorship of Landguard Fort ;  
but the union involved him in family disputes, and  
contributed by no means to his happiness. About  
1761 Mr. Thicknesse lost his second consort ;  
and, on her only son succeeding to the title and  
estate of his mother, a disagreement took place  
between him and his father, who laid his griev-  
ances before the public in a pamphlet entitled  
*Queries to Lord Audley*, 8vo. He seems to  
have indulged what Dr. Johnson calls, 'the  
triumph of hope over experience,' with regard  
to matrimony. The year after he became a wi-  
dower, he married the daughter of Mr. Ford, a  
solicitor, who long survived him. See the next  
article. By this lady he had several children,  
the difficulty of providing for whom induced him  
to retire first to Wales, and afterwards to the con-  
tinent. Having travelled through France, Italy,  
and Spain, he returned home, and resided again  
in Wales, and at Bath. Shortly after the be-  
ginning of the Revolution in France, Mr. Thick-  
nesse went abroad, intending to settle in Italy ;  
but he died of apoplexy while travelling near  
Boulogne, in 1792. Among his numerous and  
eccentric works are *Man-midwifery analysed*,  
and the *Tendency of that practice detected and*  
*exposed*, 1765, 4to. ; *A Year's Journey through*  
*France and Part of Spain*, 1777, 2 vols. 8vo. ;  
*The new prose Bath Guide*, 1778, 8vo. ; *The*  
*Valetudinarian's Bath Guide, or the Means of*  
*obtaining long Life and Health*, 1780, 8vo. ; *A*  
*Year's Journey through the Pays Bas and Aus-*  
*trian Netherlands*, 1786, 8vo. ; *A Sketch of the*  
*Life of Thomas Gainsborough*, 1788, 8vo. ; and  
*Memoirs and Anecdotes of Philip Thicknesse*,  
late Lieutenant Governor of Landguard Fort,  
and unfortunately father to George Touchet,  
Baron Audley, 1788, 2 vols. 8vo.

**THICKNESSE** (Mrs. Anne), an authoress of  
considerable accomplishments, was born in the  
Temple, February 22, 1737. Her talents and  
personal attractions having early introduced her  
into the world of fashion, she gave three con-  
certs at the opera-house on her own account.



having left her father's house abruptly, in consequence of his endeavouring to force her into marriage. By this step she is said to have realized £1500, and, acquiring the patronage of lady Betty Thicksesse, became domesticated in her family. On the death of this lady, governor Thicksesse offered her his hand, which she accepted, and above 300 persons were present at the wedding. During a union of thirty years, she accompanied her husband on various journeys to the continent; and was with him at his death, in 1792, which took place in his carriage. The French Revolution had now commenced, and Mrs. Thicksesse, with several other English ladies, was imprisoned, and narrowly escaped the guillotine; Robespierre having sent an order for their execution. On her liberation she returned to England, and ended a long life at her house in the Edgeware Road, January 20, 1824. She was the personal friend of many of the wits of the last generation. Her principal works are Biographical Sketches of Literary Females of the French Nation, 3 vols. 12mo. 1778, and a novel entitled The School of Fashion, 2 vols. 8vo. 1800.

THIEF, *n. s.*  
 THIEF-CATCHER,  
 THIEF-LEADER,  
 THIEVE, *v. n.*  
 THIEVERY, *n. s.*  
 THIEV'ISH, *adj.*  
 THIEV'ISHLY, *adv.*

Sax. *þeif*; Belgic *dief*; Goth. and Swed. *tuif*. It was anciently written *thioef*, and so appears to have been of two syllables. — Johnson. One who takes what belongs to another: the thief steals by secrecy, and the robber by violence; but these senses are confounded: the thiefcatcher and leader both mean one whose business it is to take or catch thieves: to thief is to steal; practise theft: thievery, the practice of stealing; and (obsolete) that which is stolen: thievish, inclined to thief; dishonest; secret: the adverb corresponding.

This he said because he was a *thief*, and had the bag. John.

They lay not to live by their worke,  
 But *thievishly* loiter and lurke. Tusser.

Ne how to 'scape great punishment and shame,  
 For their false treason and vile *thievery*. Spenser.

Do villany, do, since you profess to do 't,  
 Like workmen; I'll example you with *thievery*. Shakespeare.

Injurious time now, with a robber's haste,  
 Crams his rich *thievery* up he knows not how. Id.

What, would'st thou have me go and beg my food?

Or with a base and boisterous sword enforce  
 A *thievish* living on the common road? Id.

Four and twenty times the pilot's glass  
 Hath told the *thievish* minutes how they pass. Id.

Take heed, have open eyes; for *thieves* do foot by night. Id.

Their burning lamps the storm ensuing show,  
 The oil sparkles, *thieves* about the snuff do grow. May.

O *thievish* night,  
 Why shouldst thou, but for some felonious end,  
 In thy dark lantern thus close up the stars,  
 That nature hung in heaven, and filled their lamps  
 With everlasting oil, to give due light  
 To the misled and lonely traveller? Milton.

He makes it a help unto *thievery*; for *thieves*, having a design upon a house, make a fire at the four

corners thereof, and cast therein the fragments of leadstone, which raiseth fume.

Broune's *Vulgar Errors*.

Can you think I owe a *thief* my life,  
 Because he took it not by lawless force?  
 Am I obliged by that to assist his rapines,  
 And to maintain his murders? Dryden.

A wolf passed by as the *thief-leaders* were dragging  
 a fox to execution. L'Estrange.

Amongst the Spartans, *thievery* was a practice  
 morally good and honest. South.

The *thievish* god suspected him, and took  
 The hinds aside, and thus in whispers spoke:  
 Discover not the theft. Addison.

THIELIN (John Philip), an eminent painter of flowers, born at Mechlin in 1618. He was a nobleman of considerable fortune, and was employed by the king of Spain. He had three daughters, who inherited his genius, and died in 1667.

THIELT, a considerable town of West Flanders, situated at the foot of an eminence, with a castle. It has manufactures of linen and lace, soap, leather, and hats. It is to the benefits of inland navigation, and the fertility of the neighbourhood, that is owing the density of the population; for here is no provincial capital, and no government establishments of consequence. Inhabitants 9800. Eighteen miles W.S.W. of Ghent.

THIERRI I., or THEODORIC I., king of France, the third son of Clovis II.; was de throne by Childeric, but recovered his throne, and died in 1791. See FRANCE.

THIERRI II., or THIERRY II., the son of Dagobert III., was educated in a monastery; but was raised to the throne of France by Charles Martel, in 720. He died in 737. See FRANCE.

THIERS (John Baptist), a learned divine of the Sorbonne, born at Chartres, in 1686. After being a professor in the university of Paris, he was made bishop of Champrond, in Chartres. He wrote 1. A Treatise on Superstitions respecting the Sacraments; 2. De Festorum immunitatione liber; 3. A history of Perukes; and other curious tracts.

THIERS, a considerable town of France, in the department of the Puy de Dome, Auvergne, situated on the declivity of a hill, watered by the Durole. The buildings in the outskirts have a pleasing appearance, being painted in fresco in the Italian style; but the interior presents nothing but dark, crowded, and crooked streets, bordered with ill-built houses. There is not a single public square or interesting building to attract attention. It is, however, a place of considerable activity in manufactures. The principal branch is hardware, and particularly cutlery, which employs, here and in the neighbourhood, upwards of 9000 hands. These articles are sent to Spain, Italy, and the Levant, to an annual value of £60,000 or £80,000. Thiers has likewise extensive tanneries and paper manufactories; the latter, to the extent of about 12,000 cwt. annually, is sent in great part to Paris. Population 11,000. Twenty-two miles east of Riom, and twenty-five east by north of Clermont.

THIGH, *n. s.* Saxon *þeoþ*; Isl. *thioe*; Belg. *die*. Defined in the article from Quincy.

He touched the holloy of his *thigh*, and it was out of joint.

Gen. xxxii. 25.

The *thigh* includes all between the buttocks and the knee. The *thigh* bone is the longest of all the bones in the body; its fibres are close and hard; it has a cavity in its middle; it is a little convex and round on its fore-side, but a little hollow, with a long and small ridge on its back-side.

Quincy.

The flesh dissolved, and left the *thigh*-bone bare.

Wiseman.

**THILK**, *pronoun*. Saxon *ðile*. That same. Obsolete.

I love *thilk* lass: alas, why do I love?

She deigns not my good will, but doth reprove,  
And of my rural musick holdeth scorn.

Spenser's *Pastorals*.

**THILL**, *n. s.* } Sax. *ðille*, a piece of timber  
**THILLER**, } cut. The shafts of a waggon;  
the arms of wood between which the last horse is placed: *thiller*, the last horse.

Whose bridle and saddle, whitlether and nall,  
With collars and harness for *thiller* and all.

Tusser.

What a beard hast thou got! thou hast got more hair on thy chin, than Dobbin my *thill* horse has on his tail.

Shakespeare.

More easily a waggon may be drawn in rough ways, if the fore wheels were as high as the hinder wheels, and if the *thills* were fixed under the axis.

Mortimer.

**THIM'BLE**, *n. s.* Supposed by Minshieu to be corrupted from thumb bell. The Danish *finger bæl* is of the same signification. A metal cover by which the fingers are secured from the needle in sewing.

Your ladies and pale visaged maids,  
Like Amazons, come tripping after drums;  
Their *thimbles* into armed gantlets change,  
Their needles to lances.

Shakespeare. King John.

Examine Venus and the Moon,

Who stole a *thimble* or a spoon.

Hudibras.

Veins that run perpendicular to the horizon have valves sticking to their sides like so many *thimbles*; which, when the blood presses back, stop its passage, but are compressed by the forward motion of the blood.

Cheyne.

**THIMBLE MAKING**. This art is said to have been brought from Holland, in 1695, by Mr. John Lofting, a Dutchman, who set up a workshop at Islington, and practised it with success. The most common and useful thimbles are made of shruff, or old hammered brass, the best being too dear and the ordinary too brittle. This the manufacturers melt and cast in a sort of sand, with which and red ochre are made mould and cores, and in them they usually cast six gross at a cast, and about six or seven of these casts in a day. They are cast in double rows, and, when cold, taken out and cut off with greasy shears. Then boys take out the cores from the inside with a pointed piece of iron, which cores were made by them, every core having a nail with a broad head in it, which head keeps it from the mould, and makes the hollow to cast it in. This done, they are put into a barrel as they do shot, and turned round with a horse, till they rub the sand one from another. Thus far the foundry, in which are employed six persons: first, the founder and two men make the moulds ready. Secondly, two boys make cores, for each *thimble* one. Thirdly,

one that blow the bellows. From hence they are carried to the mill to be turned. First, the inside, which works with an instrument to the bottom, while its hold lasts, and flies back when let loose. Secondly, the outside, which, with a coarser engine, called a rough turning, is made pretty smooth at one stroke; and afterwards with a finer engine both the side and bottom are at one stroke made very smooth. Then some saw-dust or filings of horn combs are put half way into each thimble, and upon it an iron punch, and then, with one blow against a studded steed, the hollow of the bottom is made. After this, with an engine, the sides have the hollow made, and in this engine is their chief secret, and they can work off with it thirty or forty gross in a day. This done, they are again polished on the inside. Then the rim, whether a single or double one, is turned at one stroke, and all these turnings are performed with five men and three boys. After this, they are again turned in the barrel with saw-dust or bran, to scour them very bright, and so they are complete thimbles. Thus finished, they are sorted, and put six together one in another; and six of these half dozens are wrapped up in a blue paper; and four of these papers, making a gross, are wrapped up in another paper, and tied with a packthread, which makes them almost a square, and are sold by the first maker by the gross.

**THIME**, *n. s.* Fr. *thym*; Latin *thymus*. A fragrant herb from which the bees are supposed to draw honey. This should be written *thyme*.

Fair marigolds, and bees' alluring *thyme*.

Spenser.

**THIN**, *adj., adv., &* } Sax. *ðinn*; Isl. *thun-*  
**THIN'LY**, *adv.* [v. *s.*] } *nur*; Belgic *dun*; Swe-  
**THIN'NESS**, *n. s.* } *dish tun*. Small; rare;  
lean; attenuated; not thick or dense; not coarse: used as an adverb for not thickly: to make rare or thin; attenuate: the adverb and noun substantive correspond.

Seven *thin* ears, blasted with the east wind sprung up.

Gen. xli. 6.

Beat gold into *thin* plates, and cut it into wires.

Exodus.

The hope of the ungodly is like *thin* froth, that is blown away with the wind.

Wisdom, v. 14.

In the day, when the air is more *thin*, the sound pierceth better; but when the air is more thick, as in the night, the sound spendeth and spreadeth abroad less.

Bacon.

Spain is *thin* sown of people, by reason of the sterility of the soil, and the natives being exhausted in such vast territories as they possess.

Id.

Tickling is most in the soles, arm-holes, and sides, because of the *thinness* of the skin.

Id.

The bill against root and branch never passed, till both houses were sufficiently *thinned* and overawed.

King Charles.

No breach, but an expansion,  
Like gold to airy *thinness* beat.

Donne.

Remove the swelling epithets, thick laid  
As varnish on a harlot's cheek; the rest  
*Thin* sown with aught of profit or delight.

Milton.

It is commonly opinioned that the earth was *thinly* inhabited before the flood.

Broune's *Vulgar* 1-*rou*.

He pleased the *thin* and bashful audience  
Of our well-meaning, frugal ancestors.

Roscommon.



The waters of Boristhenes are so *thin* and light, that they swim upon the top of the stream of the river Hypanis. *More.*

Thou art weak, and full of art is he ;  
Else how could he that host seduce to sin,  
Whose fall has left the heavenly nation thin ?  
*Dryden.*

The buzzard  
Invites the feathered Nimrods of his race  
To hide the *thinness* of their flock from sight,  
And altogether make a seeming goodly flight. *Id.*  
Our walls are *thinly* manned ; our best men slain ;  
The rest an heartless number, spent with watching. *Id.*

I hear the groans of ghosts ;  
*Thin*, hollow sounds, and lamentable screams. *Id.*  
*Thin*-leaved arbut hazle graffs receives,  
And planes huge apples bear, that bore but leaves. *Id.*

T' unload the branches, or the leaves to *thin*,  
That suck the vital moisture of the vine. *Id.*  
A slim *thin*-guttled fox made a hard shift to wriggle his body into a hen-roost ; and, when he had stuffed his guts well, the hole was too little to get out again. *L'Estrange.*

A country gentlewoman, if it be like to rain, goes not abroad *thin* clad. *Locke.*

Those pleasures that spring from honour, the mind can nauseate, and quickly feel the *thinness* of a popular breath. *South.*

In country villages pope Leo the seventh indulged a practice, through the *thinness* of the inhabitants, which opened a way for pluralities.

*Ayliffe's Parergon.*

Already Cæsar  
Has ravaged more than half the globe ; and sees  
Mankind grown *thin* by his destructive sword.

'Tis Cæsar's sword has made Rome's senate little,  
And *thinned* its ranks. *Id. Cato.*

Ferrara is very large, but extremely *thin* of people.  
*Addison.*

Transparent substances, as glass, water, air, &c., when made very *thin* by being blown into bubbles, or otherwise formed into plates, do exhibit various colours, according to their various *thinness*, although at a greater thickness they appear very clear and colourless. *Newton's Opticks.*

The vapours, by the solar heat  
*Thinned* and exhaled, rise to their airy seat.

Such depend upon a strong projectile motion of the blood, and too great *thinness* and delicacy of the vessels. *Arbuthnot.*

The serum of the blood is neither acid nor alkaline : oil of vitriol thickens, and oil of tartar *thins* it a little. *Id.*

To warm new milk, pour any alkali ; the liquor will remain at rest, though it appear somewhat *thinner*. *Id.*

Sick with the love of fame, what throngs pour in,  
Unpeople court, and leave the senate *thin* ! *Young.*

THING, *n. s.* Saxon *þing* ; Belgic *dîng*.  
Whatever is ; any kind of matter ; an affair :  
used in contempt ; and particularly of persons :  
a general word.

The remnant of the meat-offering is a *thing* most holy. *Lev. ii. 3.*

The great master he found busy in packing up his *things* against his departure.

*Knolles's History of the Turks.*

Do not you chide ! I have a *thing* for you.  
You have a *thing* for me ! It is a common *thing*—

—Ha !

—To have a foolish wife. *Shakspeare. Othello.*  
See, sons, what *things* you are ! how quickly nature

Falls to revolt, when gold becomes her object !  
For this the foolish over-careful fathers  
Have broke their sleeps with thought, their brains  
with care. *Shakspeare. Henry IV.*

When a *thing* is capable of good proof in any kind, men ought to rest satisfied in the best evidence for it which that kind of *things* will bear, and beyond which better would not be expected, supposing it were true. *Wilkins.*

Wicked men, who understand any *thing* of wisdom, may see the imprudence of worldly and irreligious courses. *Tillotson.*

I should blush to own so rude a *thing*,  
As 'tis to shun the brother of my king. *Dryden.*

A *thing* by neither man nor woman prized,  
And scarcely known enough to be despised. *Id.*

Says the master You devour the same *things* that they would have eaten, mice and all. *L'Estrange.*

Princes, when they come to know the true state of *things*, are not unwilling to prevent their own ruin. *Davenant.*

The poor *thing* sighed, and, with a blessing expressed with the utmost vehemence, turned from me. *Addison.*

Never any *thing* was so unbred as that odious man. *Congreve.*

I'll be this abject *thing* no more,  
Love, give me back my heart again. *Granville.*

I have a *thing* in prose, begun about twenty-eight years ago, and almost finished : it will make a four shilling volume. *Swift.*

THINK, *v. n. & v. a.* } Pret. thought. Sax.  
THINKER, *n. s.* } Hencean ; Goth. *thunk-*  
THINKING. } gan ; Belgic *dencken.*

To have ideas ; to reason ; cogitate ; to perform any mental operation ; judge ; conclude ; intend ; imagine ; consider ; doubt : as a verb active, to believe ; imagine ; esteem : a thinker is one who thinks : thinking, cogitation ; imagination ; judgment.

Let them marry to whom they *think* best ; only to their father's tribe shall they marry.

Numb. xxxvi. 6.  
Me *thinketh* that the running of the foremost is like that of Ahimaaz. 2 Samuel, xviii. 27.

*Think* upon me, my God, for good, according to all that I have done. Nehemiah, v. 19.

He *thought* scorn to lay hands on Mordecai alone. Esther, iii.

Charity *thinketh* no evil. 1 Cor. xiii. 5.

Me *thought* I saw the grave where Laura lay. Sidney.

Thou *thought'st* to help me, and such thanks I give,

As one near death to those that wish him live. *Shakspeare.*

Edmund, I *think*, is gone,  
In pity of his misery to dispatch

His nighted life. *Shakspeare. King Lear.*  
He put it by once ; but, to my *thinking*, he would fain have had it. *Id. Julius Cæsar.*

I fear we shall not find  
This long-desired king such as was *thought*.

Daniel.  
He *thought* not much to clothe his enemies.

Milton.  
Nor *think* superfluous others aid. *Id.*

If we consider our infinite obligations to God, we have no reason to *think* much to sacrifice to him our dearest interest in this world. *Tillotson.*

You pine, you languish, love to be alone,  
Think much, speak little, and in speaking sigh.

*Dryden.*

No body is made any thing by hearing of rules, or laying them up in his memory; practice must settle the habit: you may as well hope to make a good musician by a lecture on the art of musick, as a coherent *thinker*, or strict reasoner by a set of rules.

*Locke.*

*Thinking*, in the propriety of the English tongue, signifies that sort of operation of the mind about its ideas, wherein the mind is active; where it, with some degree of voluntary attention, considers any thing.

*Id.*

The opinions of others, whom we know and *think* well of, are no ground of assent.

*Id.*

Those who love to live in gardens, have never *thought* of contriving a winter garden.

*Spectator.*

We may not be startled at the breaking of the exterior earth; for the face of nature hath provoked men to *think* of and observe such a thing.

*Burnet's Theory of the Earth.*

I was a man, to my *thinking*, very likely to get a rich widow.

*Addison.*

His experience of a good prince must give great satisfaction to every *thinking* man.

*Id. Freshholder.*

Any one may *think* with himself, how then can any thing live in Mercury and Saturn?

*Bentley's Sermons.*

Still the work was not complete,  
When Venus *thought* on a deceit.

*Swift's Miscellany.*

If your general acquaintance be among ladies, provided they have no ill reputation, you *think* you are safe.

*Swift.*

If a man had an ill-favoured nose, deep *thinkers* would impute the cause to the prejudice of his education.

*Id.*

Can it be *thought* that I have kept the gospel terms of salvation, without ever so much as intending, in any serious and deliberate manner, either to know them or keep them?

*Law.*

THIONVILLE, a town in the north-east of France, on the Moselle, the capital of an arrondissement, has a fine wooden bridge, defended by a horn-work, and is of considerable strength. Its population, amounting to 5500, manufacture stockings, hats, and other small articles; but derive their chief subsistence from the expenditure of the garrison. Seventeen miles north of Metz, and twenty-two south of Luxemburg.

THIRD, *adj.* } Sax. *þridda*. The first

THIRD'LY, *adv.* } after the second; the ordinal of three: in the third place.

This is the *third* time: I hope good luck lies in odd numbers.

*Shakspeare.*

First, metals are more durable than plants; secondly, they are more solid; *thirdly*, they are wholly subterranean.

*Bacon.*

Such clamours are like the feigned quarrels of combined cheats, to delude some *third* person.

*Decay of Piety.*

Divide the natural day into twenty-four equal parts, an hour into sixty minutes, a minute into sixty seconds, a second into sixty *thirds*.

*Holder on Time.*

The protestant subjects of the abbey make up a *third* of its people.

*Addison.*

THIRLBY (Styan), LL. D., a learned English critic, born in 1692. He wrote a Defence of the Trinity, and other works, and edited Justin's Works, in fol. 1723. He died in 1753.

THIRSK, a borough and market-town of the North Riding of York. Eight miles S. S. E. of

Northallerton, and 223 north by west of London, lying on each side the small river Codbeck, over which there are two stone bridges. One part is called the Old, the other the New Town. The church is a fine old building, erected out of the ruins of its castle, destroyed by Henry II., and the Quakers and Methodists have chapels here. In the town are several excellent charity schools. It is a borough by prescription, and sends one member to parliament, chosen by the burgage-holders of that part called Old Thirsk. The returning officer is the bailiff. This town has a bank. Market on Monday. Fairs, first Monday before Lent, April 5th, August 5th, October 29th, and first Tuesday after St. Andrew's day for cattle, cheese, linens, pedlary, &c. It is a curacy.

THIRST, *n.s., v. n., & v. a.* } Saxon *þyrre*;

THIRST'INESS, *n.s.* } Belgic *durst*;

THIRST'Y, *adj.* } Swedish *torst*.

The pain suffered for want of drink; want of drink: hence eagerness; vehement desire: to feel want of drink; have vehement desire; to want to drink: the state of being thirsty; suffering want of drink.

My soul *thirsteth* for the living God. *Ps. xlii. 2.*

Give me a little water to drink, for I am *thirsty*.

*Judges iv.*

They shall not hunger nor *thirst*. *Isaiah, xlix. 10.*

The people *thirsted* there for water. *Exod. xvii. 3.*

Thy brother's blood the *thirsty* earth hath drank,

Broached with the steely point of Clifford's lance.

*Shakspeare.*

Not hope of praise, nor *thirst* of worldly good,  
Enticed us to follow this emprise.

*Fairfax.*

Next they will want a sucking and soaking *thirstiness*, or a fiery appetite to drink in the lime. *Wotton.*

But fearless they pursue, nor can the flood  
Quench their dire *thirst*; alas! they *thirst* for blood.

*Denham.*

Thou hast allayed the *thirst* I had of knowledge.

*Milton.*

The rapid current, through veins  
Of porous earth with kindly *thirst* up drawn,  
Rose a fresh fountain.

*Id.*

They as they *thirsted* scoop the brimming stream.

*Id.*

Thus accursed,  
In midst of water I complain of *thirst*.

*Dryden.*

Till a man hungers and *thirsts* after righteousness, till he feels an uneasiness in the want of it, his will will not be determined to any action in pursuit of this confessed greater good.

*Locke.*

Unworthy was thy fate,  
To fall beneath a base assassin's stab,  
Whom all the *thirsty* instruments of death  
Had in the field of battle sought in vain.

*Rowe*

Untamed and fierce the tiger still remains;  
For the kind gifts of water and of food,  
He seeks his keeper's flesh, and *thirsts* his blood.

*Prior.*

*Thirst* and hunger denote the state of spittle and liquor of the stomach. *Thirst* is the sign of an acrimony commonly alkaliescent or muriatic.

*Arbuthnot on Aliments.*

Say, is't thy bounty, or thy *thirst* of praise?

*Graveille.*

This is an active and ardent *thirst* after happiness, or after a full beatifying object.

*Cheyne.*

But furious *thirsting* thus for gore,  
The sons of men shall ne'er approach thy shore.

*Pope*



For forty years

I've lived an anchorite in prayers and tears :  
Yon spring, which bubbles from the mountain's side,  
Has all the luxury of *thirst* supplied. *Harte.*

**THIRTEEN, adj.** } Saxon *þreotene*. Ten  
**THIRTEENTH.** } and three.

Speaking at the one end, I heard in return the  
voice *thirteen* times. *Bacon's Natural History.*

If she could prove a *thirteenth* task for him  
Who twelve achieved, the work would me beseem.

*Beaumont's Psyche.*

The *thirteenth* part difference bringeth the business  
out to such a pass, that every woman may have a husband.  
*Graunt.*

**THIRTY, adj.** } Sax. *þrittegoða*. Thrice  
**THIRTIETH.** } ten: the tenth thrice told;  
the ordinal of thirty.

I have slept fifteen years.

—Ay, and the time seems *thirty* unto me.

*Shakespeare.*

Henry shall espouse the lady Margaret ere the  
*thirtieth* of May next ensuing. *Id.*

A *thirtieth* part of the sun's revolution. *Hale.*

More will wonder at so short an age,  
To find a blank beyond the *thirtieth* page. *Dryden.*

The Claudian aqueduct ran *thirty-eight* miles.

*Addison.*

**THIS, pronoun.** Sax. *þis*. That which is  
present; what is now mentioned; the next future;  
opposed to *that* and the *other*.

*This* same shall comfort us concerning our toil.

*Gen. v. 29.*

Let not the Lord be angry, and I will speak yet  
but *this* once: peradventure ten shall be found  
there. *Id. xviii. 32.*

Bardolph and Nim had more valour than *this*, yet  
they were both hanged; and so would *this* be, if he  
durst steal. *Shakespeare.*

Come a little nearer *this* way. *Id.*

Their judgment in *this* we may not, and in *that* we  
need not follow. *Hooker.*

Sure there are poets that did never dream  
Upon Parnassus, nor did taste the stream  
Of Helicon; we therefore may suppose  
*Those* made not poets, but the poets *those*. *Denham.*

Neither their sighs nor tears are true,  
*Those* idly blow, *these* idly fall,  
Nothing like to ours at all,

But sighs and tears have sexes too. *Cowley.*

According as the small parts of matter are con-  
nected together after *this* or that determinate manner,  
a body of *this* or that denomination is produced.

*Boyle.*

*This* is not the place for a large reduction. *Hale.*

I have not wept *this* forty years; but now  
My mother comes afresh unto my eyes. *Dryden.*

By *this* the vessel half her course had run. *Id.*

Consider the arguments which the author had to  
write *this*, or to design the *other*, before you arraign  
him. *Id.*

Did we for *these* barbarians plant and sow?

On *these*, on *these* our happy fields bestow? *Id.*

Do we not often hear of *this* or that young heir?  
He is not his riches and his lewdnesses talked of to-  
gether? *South.*

With endless pain *this* man pursues  
What, if he gained, he could not use:  
And *'other* fondly hopes to see

What never was, nor e'er shall be.

*Prior.*

More rain falls in June and July than in Decem-  
ber and January; but it makes a much greater shew  
upon the earth in *these* months than in *those*, because  
it lies longer upon it. *Woodward's Natural History.*

There is a very great inequality among men as to  
their internal endowments, and their external condi-  
tions, in *this* life. *Culamy's Sermons*

The fibres of this muscle act as *those* of others.

*Cheyne.*

As when two winds with rival force contend,  
*This* way and that, the wavering sails they bend,  
While freezing Boreas and black Eurus blow,  
Now here, now there, the reeling vessel throw.

*Pope.*

**THISTLE, n. s.** } Saxon *þistel*; Belgic  
**THIST'LY, adv.** } *diestel*. A prickly weed,  
growing in corn fields: the adverb correspond-  
ing.

Hateful docks, rough *thistles*, kecksies, burs.

*Shakespeare.*

Get you some carduus benedictus, and lay it to  
your heart,

—There thou prick'st her with a *thistle*. *Id.*

**THISTLE, ORDER OF THE,** or order of St. Andrew, a military order of knighthood in Scotland, the rise and institution of which is variously related by different authors. Lesley, bishop of Ross, reports, that the night before the battle between Athelstan, king of Northumberland, and Hungus, king of the Picts, a bright cross, in form of that whereon St. Andrew (the tutelar saint of Scotland) suffered martyrdom, appeared to Hungus; who, having gained the victory, ever after bore the figure of that cross on his banners. Others assert that Achaius, king of Scotland, first instituted this order, after having made the famous league offensive and defensive with Charlemagne, king of France; while some refer the beginning of this order to Charles VII., of France. The chief and principal ensign is a gold collar, composed of thistles and sprigs of rue interlinked with amulets of gold, having pendant thereto the image of St. Andrew with his cross, and the motto, NEMO ME IMPUNE LACESSIT. The ordinary or common ensign worn by the knights is a star of four silver points, and over them a green circle bordered and lettered with gold, containing the said motto, and in the centre is a thistle; all which is embroidered on their left breast, and worn with the collar, with a green riband over the left shoulder, and brought under the right arm; pendant thereto is the image of St. Andrew with his cross, in a purple robe, within an oval of gold-enamelled vert, with the former motto; but sometimes they wear, encircled in the same manner, a thistle crowned. About the time of the Reformation this order was dropped, till James II. of Great Britain resumed it by creating eight knights. The Revolution unsettled it again; and it lay neglected, till queen Anne, in 1703, restored it to the primitive design, of twelve knights.

**THISTLEWOOD (Arthur)**, memorable for the part he took in the political commotions which agitated England, immediately after the restoration of regal government in France. He was the son of a Lincolnshire farmer, and was born in 1772. Having obtained a lieutenant's commission in the supplementary militia, in 1797, he succeeded in obtaining the hand of a young lady of good fortune. Unfortunately for Thistlewood's future destinies, he lost his wife, only eighteen months after their union; and removing to Lincoln, and thence to London, he

abandoned himself to riot, gambling, and dissipation in all its forms. During this ill-spent portion of his life, he made occasional visits to America and France, whence in all probability he imbibed those political notions that led to his future disgrace. After the peace of America he settled in England, having contracted a second marriage; but he had now become a professed gambler, and associated with the lowest and most abandoned wretches. He took part in the Spa-fields riots, behaved in the most outrageous manner towards lord Sidmouth, and was detained in prison in consequence, for a considerable time. On his liberation he gave way to the suggestions of rage and vengeance, and became the prime mover in what has since been denominated the Cato-street conspiracy, the design of which was the assassination of his majesty's ministers. This absurd project was interrupted a little before the intended moment of its execution, and Thistlewood and his associates, being tried, and found guilty of high treason, underwent the sentence of the law on the 1st of May, 1820.

**THITHER**, *adv.* } Sax. *ðreop*. To that  
**THITHERWARD**. } place: it is opposed to  
 hither: toward that place.

**THLAPSI**, bastard cress or mithridate mustard, in botany, a genus of plants belonging to the class of tetradynamia, and order of siliculosa; and in the natural system ranging under the thirty-ninth order siliquosa. The pod is emarginated, obcordate, and polyspermous; the valves are boat-shaped, and marginato-carinated. There are twelve species, of which six only grow in Britain.

**THOAS**, a son of Bacchus and Ariadne; made king of Lemnos by Rhadamanthus. He afterwards resigned it to his daughter Hypsipyle, who saved his life when the Lemnian women killed all the men. See **HYPSIPYLE**.

**THOMAS** (Christian), was born at Leipsic in 1655. He was professor of jurisprudence, first at Berlin, and afterwards at Hull. He died at Hull in 1748. He was author of an Introduction to Puffendorf, and many other works on logic, morals, and jurisprudence, in which he advanced a variety of dogmas contrary to received opinions.

**THOMAS** (Elizabeth), an ingenious English lady, born in 1675, and distinguished by the title of Corinna in Pope's Dunciad, because she had communicated some of that irritable poet's letters to Curl the bookseller. Her poems and letters are entertaining, and were published in 2 vols. fol.

**THOMAS** (St.), a considerable island of the Gulf of Guinea, off the coast of Africa, being about 100 miles west from the mouth of the Rio Gabon. It appears to be about forty miles in length and thirty in breadth, and is immediately under the line. The excess both of heat and moisture renders it extremely pernicious to European residents, who seldom exceed the age of fifty: the season which they call winter occurs twice in the year, and would rather be called midsummer with us, occurring when the sun, in passing from one tropic to another, is immediately vertical.

The first colony sent thither by the Portuguese all fell a sacrifice to the pestilential air. They have since had the precaution to cause those who repair thither to make some stay in Guinea or Angola, by which means they are seasoned to the climate. The Dutch took possession of it in 1641; but were soon induced to abandon it. The greater part is exceedingly fertile, and in the centre is a very lofty mountain, covered with extensive forests. The chief article raised is sugar. On the eastern part of the island, facing the continent, is the town of Povoacon, consisting of 700 houses, and defended by several forts. High duties are exacted from all vessels except Portuguese; and the port, not being situated on any of the great maritime routes, is not much frequented. The water, however, is excellent, and the live stock and hogs plentiful. Long. 6° 25' E., lat. 0° 5' to 0° 50' N.

**THOMAS** (St.), the principal of the Virgin islands in the West Indies, is eighteen miles in circumference, and belongs to the Brandenburgs and Danes, the former being under protection of the latter. It abounds with potatoes, millet, manioc, and most sorts of fruit and herbage, especially sugar and tobacco, but is extremely infested with mosquitoes and other troublesome vermin. Here are excellent kids, and all sorts of wild fowl; but provisions are dear. Dampier calls it a free port, and a receptacle or sanctuary for privateers; and indeed the Danish monarch's ports, from his being generally a neutral prince, are open to the shipping of all nations. Here is a safe and commodious harbour, with two natural mounds upon it, calculated, as it were, for placing two batteries for the defence of its entrance. The British held this island for a short time during the late wars; when its exports were valued at 800,000, imports 300,000.

**THOMAS** (SAN), a celebrated city of Guiana, on the right bank of the Orinoco, about 244 miles west of its mouth. The streets are on a line and paved; and the houses are for the most part built, as in the Caraccas, of lime and sand with terraces on the top, where they sleep in seasons of the greatest heat. Storms are frequent in August, September, and October. They have no earthquakes, but sometimes a wind that does not last long, which blows with the violence of a hurricane, and which terminates in rain. It is of a hot temperature and very unhealthy. Long. 63° 55' W., lat. 8° 7' N.

**THOMAS** (JAMES), a learned German, born of a good family, at Leipsic, who became professor of eloquence at Leipsic, and among his pupils was the celebrated Leibnitz. His chief works are, *The Origin of Philosophical and Ecclesiastical History*, and several learned Dissertations, in 11 vols. 8vo.

**THOMAS'S DAY** (St.), a festival of the church, observed on December, 21, in commemoration of St. Thomas the apostle.

**THOMAS'S DAY** (St.), OF **CANTERBURY**, a festival of the Romish church, observed on December 29, in memory of Thomas Becket archbishop of Canterbury, who was murdered, or, as the Romanists say, martyred, in the reign of king Henry II. See **BECKET**.

**THOMPSON** (Sir Benjamin), count of Rumbold.



ford, distinguished by his zeal in the promotion of various branches of practical science, was born at the village of Rumford, in New England, in the year 1752; and, with the assistance afforded him by a professor of natural philosophy in the American university of Cambridge, acquired in early life such a degree of knowledge as enabled him to give instruction to others. By an advantageous marriage, while he was young, his advancement was accelerated, so that he obtained the rank of a major in the militia of his native district. When the war broke out, between the mother country and her colonies, he took part with the former, and rendered himself useful to several of the British generals. In process of time he repaired to England, and recommending himself to lord George Germaine, the chief minister in the American department, obtained a place in his office. Towards the close of the war, the same nobleman, with a view of securing for him a provision, sent him to New York, where he raised a regiment of dragoons, and, by being appointed lieutenant-colonel, became entitled to half-pay. Upon his return to England, his majesty, in 1784, conferred upon him the honor of knighthood; and for some time he was one of the under secretaries of state. Soon after he made a tour to the continent, and being warmly recommended by the prince of Deux-Ponts, afterward king of Bavaria, to the reigning elector-palatine, and duke of Bavaria, he was admitted into his service, and occupied an eminent station. He had thus an opportunity of effecting many important and useful reforms, both civil and military. His attention was at first directed to the suppression of mendicity, which prevailed not only at Munich, the capital, but through the whole country, to an extent that rendered the abolition of it a very difficult undertaking. He formed however a plan for employing all mendicants; and having provided a building for their reception, and materials for their labor, sallied forth into the streets of the city on the 1st of January 1790, (New Year's day being set apart for giving alms in Bavaria), accompanied by the field officers of the garrison and the magistrates of the city; and, arresting with his own hand the first beggar that came in his way, his attendants followed his example, so that before night not a single beggar was to be seen in the whole metropolis. Those arrested were conducted to the town hall, where their names were inscribed, and then ordered to repair to the workhouse, where they would find employment, and a sufficiency of wholesome food. In consequence of these vigorous measures, the evil was redressed, and the mendicants were led to prefer industry to idleness, and decency to filth and rags. He also introduced into Bavaria the culture of potatoes. For these services Sir Benjamin was decorated by the Bavarian sovereign with several orders, promoted to the rank of lieutenant general, and created a count by the title of his native place, Rumford. During his abode at Munich, he commenced his experiments upon fire places, the economy of fuel, and the convenience of cooking; and also his plans for a cheaper and more nutritive mode of feeding the poor. Having in 1799 quitted

Bavaria, he resided for some time in this country, pursuing a variety of experiments on the nature and application of heat, and the construction of fire places. He also promoted science by liberally exciting emulation in others. For the latter purpose, he transferred, on a visit to this country in 1796, to the Royal Society of London, of which he was a member, £1000, three per cent, stock, the interest of which was to be applied every second year as a premium to the author of the most important discovery on the subjects of heat and light in any part of Europe during the two preceding years. He also suggested the plan, and assisted in the formation of the Royal Institution.

In 1802 he fixed his residence at Paris, where he married the widow of the celebrated Lavoisier; but this connexion, proving unhappy, was terminated by a separation. The count afterwards retired to a country house at Auteuil, about four miles from Paris, and, preferring the climate of France, obtained permission from the king of Bavaria to continue there, and to enjoy his pension of £1200 a year. He died of a slow fever in August 1814, in his sixty-third year.

THOMSON (James), a British poet, the son of a Scottish divine, was born in the shire of Roxburgh, in 1700, and educated in the university of Edinburgh, with a view to the ministry. But he relinquished his views of engaging in the sacred function, and repaired to London, in consequence of some engagement which he had received from a lady of quality there, a friend of his mother. The reception he met with, wherever he was introduced, emboldened him to risk the publication of his excellent poem on Winter. This piece was published in 1726; and, from the universal applause it met with, Mr. Thomson's acquaintance was courted by people of the first taste and fashion. But the chief advantage which it procured him was the acquaintance of Dr. Rundle, afterwards bishop of Derry, who introduced him to the late lord chancellor Talbot; and some years after, when the eldest son of that nobleman was to make his tour on the continent, Mr. Thomson was chosen as his tutor. The expectations which his Winter had raised were fully satisfied by the successive publications of the other seasons; of Summer in 1727; of Spring in 1728; and of Autumn, in a 4to edition of his works in 1730. Besides the Seasons, and his tragedy of Sophonisba, written and acted with applause in 1729, he had, in 1727, published his poem to the Memory of Sir Isaac Newton, with an account of his chief discoveries. That same year, the resentment of our merchants for the interruption of their trade by the Spaniards in America, running very high, Mr. Thomson zealously took part in it, and wrote his *Britannia*, to rouse the nation to revenge. With the honorable Charles Talbot our author visited most of the courts in Europe, and returned with his views greatly enlarged. On his return to England with Mr. Talbot (who soon after died), the chancellor made him his secretary of briefs; a place suiting his retired indolent way of life, and equal to all his wants. From this office he was removed, when death, not long after, deprived him of his patron. He

then found himself reduced to a state of precarious dependence.

Thomson having had, we are told, the misfortune to be arrested, the report of his distress reached the ears of Quin, the comedian, who sought him in a spunging house, in Holborn, and being admitted into the room, was, after some civilities on both sides, invited by Thomson to sit down. Quin then told him that he was come to sup with him, and had already ordered supper to be provided, which he hoped he would excuse. Mr. Thomson made the proper reply, and the discourse turned on subjects of literature. When supper was over and the glass had gone briskly round, Quin observed that it was time to enter upon business. On which Mr. Thomson, imagining that he was come about some affairs relating to the drama, declared that he was ready to serve him to the utmost of his capacity in any thing he should command. 'Sir,' said Quin, 'you mistake my meaning; I am in your debt, I owe you £100; and I am come to pay you.' Thomson replied, that as he was a gentleman whom he had never offended, he wondered he should come to insult him in his misfortunes. Quin, in return, expressed his detestation of such ungenerous behaviour, adding, 'I say I owe you £100; and there it is,' laying a bank note of that value before him. Thomson, filled with astonishment, begged he would explain himself. 'Why,' replied Quin, 'I'll tell you. Soon after I had read your Seasons, I took it in my head, that, as I had something to leave behind me when I died, I would make my will; and, among the rest of my legatees, I set down the author of the Seasons £100; but this day, hearing that you were in this house, I thought I might as well have the pleasure of being my own executor.' Mr. Thomson expressed his acknowledgment, and the sum instantly procured his discharge.

But the profits arising from his works were not inconsiderable; his tragedy of Agamemnon, acted in the year 1738, yielded a good sum; but his chief dependence was upon the prince of Wales, who settled on him a handsome allowance, and honored him with many marks of particular favor. Notwithstanding this, however, he was refused a licence for his tragedy of Edward and Eleonora, which he had prepared for the stage in 1736. Thomson's next performance was the Masque of Alfred, written in 1740 jointly with Mr. Mallet, by the command of the prince of Wales, for the entertainment of his royal highness's court at Clifden. The last work he published was The Castle of Indolence, his tragedy of Coriolanus being only prepared for the theatre, when he died, August 27, 1748, in consequence of a cold he caught on the Thames. The distinguishing qualities of his mind and heart appear best in his writings. It is not known that through his whole life he ever gave any person a moment's pain, either by his writings or otherwise; nor wrote, as it has been truly said of him—

'A line which, dying, he could wish to blot.'

His testamentary executors were lord Lyttleton and Mr. Mitchell. By their united interests,

the orphan play of Coriolanus was brought on the stage to the best advantage; from the profits of which, and the sale of MSS. and other effects, a handsome sum was remitted to his sisters. His remains were deposited in the church of Richmond, under a plain stone, long without an inscription. A handsome monument was erected to him in Westminster Abbey in 1762, the charge of which was defrayed by the profits arising from a splendid edition of all his works in 4to.; Mr. Millar the bookseller, who had purchased all Mr. Thomson's copies, giving up his property on this occasion. A monument has also been erected to him at the place of his birth.

THONG, *n. s.* Sax. *þnang*, *þnong*. A strap, or string of leather.

The Tuscan king  
Laid by the lance, and took him to the sling;  
Thrice whirled the *thong* about his head, and threw  
The heated lead half melted as it flew.

*Dryden's Æneid.*

The ancient cestus only consisted of so many large *thongs* about the hand, without any lead at the end.

*Addison.*

THOR, the eldest and bravest of the sons of Odin and Frea, was, after his parents, the most distinguished deity of the Saxons and Danes. They believed that Thor reigned over all the aerial regions, which composed his immense palace, consisting of 540 halls; that he launched the thunder, pointed the lightning, and directed the meteors, winds, and storms. Our THURSDAY still bears his name. See POLYTHEISM.

THORACIC, *adj.* From *thorax*. Belonging to the breast.

The chyle grows gray in the *thoracic* duct.

*Arbutnot.*

THORAL, *adj.* Lat. *thorus*. Relating to the bed.

The punishment for adultery, according to the Roman law, was sometimes made by a *thoral* separation.

*Aglyffe.*

THORDA, or THORENBURG, a county and town of Transylvania, in the province belonging to the Magyars or Hungarians. It lies nearly in the centre of the principality, having the county of Clausenburg to the north, and that of Weissenburg to the south. The area of the county is 1850 square miles; its population nearly 100,000. It is very hilly, but has pleasant valleys producing wine, watered by the Maros. It has little corn land, but here are several productive mines of salt and iron. It has also extensive forests. Thorda, or Thorenburg, the capital is situated near the river Aranjós, and divided by a smaller stream, called the Salzbach, into two parts, called Old and New Thorda. It contains about 8000 inhabitants.

THORN, *n. s.* } Saxon *þorn*; Gothic  
THORN'BACK, } *þaurn*. A prickly tree;  
THORN'Y, *adj.* } a difficult point: a sea-fish: the adverb corresponding with *thorn*.

*Thorns* and *thistles* shall it bring forth.

*Gen. iii. 18.*

The most upright is sharper than a *thorn* hedge.

*Micah vii. 4.*

By how many *thorny* and hard ways they are come thereunto, by how many civil broils.

*Spenser on Ireland*



No dislike against the person  
Of our good queen, but the sharp *thorny* points  
Of my alleged reasons drive this forward.

*Shakspeare.*

Not winding ivy, nor the glorious bay;  
He wore, sweet head! a *thorny* diadem. *Randolph.*  
Flowers of all hue, and without *thorn* the rose.

*Milton.*

The wiser madmen did for virtue toil  
A *thorny*, or at best a barren soil. *Dryden.*

The guilt of empire; all its *thorns* and cares  
Be only mine. *Southern's Spartan Dame.*

Stiff opposition, and perplexed debate,  
And *thorny* care, and rank and stinging hate.

*Young.*

THORN, a considerable town of West Prussia, in the government of Marienwerder, on the Vistula, about ninety miles from the mouth of the river, over which it has a very long wooden bridge. It consists of the old and new towns, separated from each other by a wall and ditch; but, as both are surrounded by a mound and moat, Thorn was formerly considered a place of strength. The manufactures are woollens, linen, hats, leather, gloves, starch; and the chief exports corn and wood. Its best edifices are of old date. The town was begun under the Teutonic knights in 1231, and, when the government of these knights became oppressive, Thorn set the first example of throwing off the yoke, and putting herself as a free town under the protection of Poland. It enjoyed a considerable share of prosperity until the eighteenth century; but in 1708 and 1710 it was ravaged by the plague, and in 1724 occurred a violent dispute between the Protestant and Catholic inhabitants. In 1793 it was taken possession of by a Prussian garrison: in 1806 it suffered from the invasion of the French, and remained in their hands until the disastrous retreat from Moscow. The well known Copernicus was born here in 1472. Population 8000. Ninety-two miles south of Dantzic, and 113 W.N.W. of Warsaw.

THORNBURY, a market-town of Gloucestershire, situate on a rivulet that falls into the Severn, two miles distant; being eleven miles north of Bristol, and 121 from London. The town is in a low situation, consists of three streets, in the form of a Roman Y, about half a mile in length; but the church is spacious, in the form of a cathedral, and has a high tower. Here is a free school and four almshouses. The town is a borough by prescription, governed by a mayor, twelve aldermen, and two constables; and here are the remains of a magnificent palace, begun by the great duke of Buckingham, in 1511, but the completion of that, and a navigable canal to the Severn, was prevented by his attainder. Several rooms, annexed to the walls of the castle, are intended as barracks for soldiers. Market on Saturday. Fairs, Easter Monday, 15th of August, and Monday before St. Thomas's day.

THORNDIKE (Herbert), B. D., a learned English divine of the seventeenth century. He was educated at Trinity college, Cambridge, where he graduated. In 1613 he was elected master of Trinity College; but was soon after ejected for his loyalty. In 1660 he obtained a prebend in Westminster Abbey. He wrote, 1.

*Epilogus*, a Latin treatise in defence of the Church of England, folio; 2. *A Treatise on Weights and Measures*; 3. *A tract On Church Censures*. He also assisted Walton in the *Polyglot Bible*. He died in 1672.

THORNE, a market-town, West Riding of York, seven miles south by east of Snaith, and 161 north of London. This town is tolerably well built, and the streets are paved; but it is situate in a very damp and marshy soil, being entirely surrounded by the rivers Don, Aire, Ouse, and another small river which divides it from the Isle of Axholme, in Lincolnshire. These rivers communicating with each other, and with the Stainforth and Headley canal, pass the end of the town, and contribute greatly to the increase of its trade. Besides a neat church, it contains chapels for Methodists, and one for Quakers. Many vessels are built here for the port of Hull. Market on Wednesday.

THORNEY, a parish in the Isle of Ely, Cambridge, six miles north by west of March, and eighty-six from London; formerly called Thorney Abbey; and previously Ankridge. Market on Tuesday, and two annual fairs.

THORNHILL (Sir James), an eminent English painter, was born in Dorsetshire in 1676, of an ancient family; but was constrained to apply to some profession, his father having been obliged to sell his family estate. On his arrival in London he applied to his uncle, the famous Dr. Sydenham, who enabled him to proceed in the study of the art of painting, and the genius of Thornhill made ample amends for the insufficiency of his instructor. He gradually rose to the highest reputation; and his performances in the dome of St. Paul's church at London, in the hospital at Greenwich, and at Hampton-court, are such public proofs of his merit as will convey his name to posterity with great honor. He lived in general esteem; enriched himself by the excellence of his works; was appointed state painter to queen Anne, from whom he received the honor of knighthood; had the singular satisfaction to repurchase his family estate; and was elected member of parliament. He died in 1732.

THORNTON (Bonnell), A. M. and M. B., an English poet, born in Maiden-lane, London, in 1724, was the son of an apothecary; and, being educated at Westminster school, was elected to Christ Church, Oxford, in 1743. The first work in which he was concerned was, *The Student*, or *Oxford and Cambridge Miscellany*, which appeared in monthly numbers; and was collected in 2 vols. 8vo. in 1748. Smart was the chief conductor of the work; but Thornton, and other wits of both universities, assisted in it. He took his degrees in 1750 and 1754. In 1754 he undertook *The Connoisseur*, in conjunction with Coleman, which they continued weekly to the 30th September, 1756. To the *Public Advertiser*, then in high reputation, he was a frequent contributor. In 1766 he published a translation of *Plautus* in blank verse, in 2 vols. These volumes contain seven plays, of which the *Captive* was translated by Mr. Warner, who afterwards completed all that Thornton left unfinished. Thornton published, in 1767, *The Battle of the Wigs*, on the disputes then subsisting between

the fellows and licentiates. He died, of the gout in his stomach, May 9, 1768, aged forty-four. He wrote the papers in the *Advertiser* marked A; An Ode to St. Cecilia's Day, The Oxford Barber; with many detached essays in the public papers.

THORNTON (Thomas, col.), a noted sportsman and *bon vivant*, lieutenant-colonel of the West York militia, prince de Chambord and marquis de Pont in France, in which country he had purchased estates. He was born in London, and educated at the Charter House, whence he proceeded to Glasgow, and, on inheriting his patrimonial estate of Thornville Royal, distinguished himself by his attachment to field sports, and especially falconry. At the peace of Amiens he proceeded to France, where he afterwards settled, for the purpose of examining the state of sporting in that country, and gave the result of his observations to the world in a work entitled *A Sporting Tour through France*, 1806, 2 vols. 4to. Previously to the appearance of this he had printed, in 1804, *A Sporting Tour through the North of England and the Highlands of Scotland*, 4to. He was also the author of a small work entitled *A Vindication of Colonel Thornton's Conduct in his Transactions with Mr. Burton*, 8vo., 1806. He died at Paris early in the summer of 1823.

THOROUGH, *prepos. & adj.*

THOROUGHFARE, *n. s.*

THOROUGHLY, *adv.*

THOROUGHSPACED, *adj.*

THOROUGHSPED,

THOROUGHSTITCH.

Sax. *þurpah.*

Through extended into

two syllables.

By way of

making

passage or penetration; by means of: as an adjective

complete; perfect; full; passing through: a thoroughfare is a passage through; the power of passing: thoroughly, completely; fully: thoroughpaced, perfect in what is undertaken; complete: thoroughsped is of similar import: thoroughstitch, completely; fully.

The Irish horseboys, in the *thorough* reformation of that realm, should be cut off. *Spenser.*

Mark Antony will follow

*Thorough* the hazards of this untrod state,  
With all true faith. *Shakspeare. Julius Cæsar.*

Look into this business *thoroughly*. *Shakspeare.*

Let all three sides be a double house, without *thorough* lights on the sides. *Bacon.*

He did not desire a *thorough* engagement till he had time to reform some, whom he resolved never more to trust. *Clarendon.*

Hell, and this world, one realm, one continent  
Of easy *thoroughfare*. *Milton's Paradise Lost.*

We can never be grieved for their miseries who are *thoroughly* wicked, and have thereby justly called their calamities on themselves.

*Dryden's Dufresnoy.*

The courts are filled with a tumultuous din  
Of crowds, or issuing forth, or entering in:  
*A thoroughfare* of news; where some devise  
Things never heard; some mingle truth with lies.

*Dryden.*

A *thorough* translator must be a *thorough* poet.

*Id.*

The ungrateful person is a monster, which is all throat and belly; a kind of *thoroughfare*, or common shore for the good things of the world to pass into.

*South.*

Perseverance alone can carry us *thoroughstitch*.

*L'Estrange.*

One would think that every member of the community who embraces with vehemence the principles of either party, had *thoroughly* sifted and examined them.

*Addison.*

They had forgotten their solemn vows as *thoroughly* as if they had never made them. *Atterbury.*

When it was proposed to repeal the test clause, the ablest of those who were reckoned the most staunch and *thoroughpaced* Whigs fell off at the first mention of it.

*Swift.*

Our *thoroughsped* republick of Whigs, which contains the bulk of all hopers, pretenders, and professors, are most highly useful to princes.

*Id.*

A *thorough* practice of subjecting ourselves to the wants of others, would extinguish in us pride.

*Id.*

How can I call a general disregard and a *thorough* neglect of all religious improvements a frailty or imperfection, when it was as much in my power to have been exact, and careful, and diligent?

*Law.*

THOROUGH-WAX, in botany. See BURLEURUM.

THOTH, or THEUT (called by the Phœnicians Taaut, by the Greeks Hermes, and by the Romans Mercury), was a Phœnician of very superior talents, and one of the civilizers of mankind. He was prime minister to Osiris, whom, after his death, he deified; and he was himself deified by his countrymen the Egyptians.

THOU, *pronoun & v. a.* Sax. *þu*; Teut. and Dan. *du*; Goth. *ther*, *tu*, in the oblique cases singular *thee*, Sax. *þe*. in the plural *ye*, Sax. *ge*, in the oblique cases plural *you*, Sax. *eop*. The second pronoun personal: *to thou* is to treat with familiarity. *You* is now commonly used for the nominative plural.

Is this a dagger which I see before me,  
The handle tow'rd my hand! Come let me clutch *thee*.

I have *thee* not, and yet I see *thee* still.

Art thou not, fatal vision, sensible

To feeling as to sight? *Shakspeare. Macbeth.*

Taunt him with the licence of ink; if thou *thou'st* him some thrice, it shall not be amiss.

*Shakspeare.*

Poet and saint, to *thee* alone were given  
The two most sacred names of earth and heaven.

*Cowley.*

*Thou*, if there be a *thou* in this base town,  
Who dares with angry Eupolis to frown;  
Who at enormous villainy turns pale,  
And steers against it with a full-blown sail.

*Dryden.*

For though in dreadful whirls we hung

High on the broken wave,

I know *thou* wert not slow to hear,

Nor impotent to save.

*Addison.*

THOUGH, *conj.* Sax. *þeah*; Goth. *thauh*. Notwithstanding that; although.

In the vine were three branches; and it was as *though* it budded.

*Genesis xl. 10.*

Not that I so affirm, *though* so it seem.

*Milton.*

The sound of love makes your soft heart afraid,

And guard itself, *though* but a child invade.

*Waller.*

You shall not quit Cydaria for me:

'Tis dangerous *though* to treat me in this sort,

And to refuse my offers, *though* in sport. *Dryden.*

I can desire to perceive those things that God has prepared for those that love him, *though* they be such



as eye hath not seen, ear heard, nor hath it entered into the heart of man to conceive. *Locke.*

Though the name of abstracted ideas is attributed to universal ideas, yet this abstraction is not great. *Watts's Logic.*

|                               |   |
|-------------------------------|---|
| THOUGHT, <i>n. s.</i>         | } The <i>pret.</i> and<br><i>part. pass.</i> of THINK,<br>which see. The act<br>of thinking: idea;<br>sentiment; imagi-<br>nation; opinion;<br>contemplation; de-<br>sire: the derivatives all strictly correspond. |
| THOUGHTFUL, <i>adj.</i>       |   |
| THOUGHTFULNESS, <i>n. s.</i>  |   |
| THOUGHTLESS, <i>adj.</i>      |   |
| THOUGHTLESSLY, <i>adv.</i>    |   |
| THOUGHTLESSNESS, <i>n. s.</i> |   |
| THOUGHTSICK, <i>adj.</i>      |   |

Let us return, lest he leave caring for the asses, and take *thought* for us. *1 Samuel ix. 5.*

He that is ready to slip, is a lamp despised in the thought of him that is at ease. *Job xii. 5.*

The *thoughts* I think towards you are *thoughts* of peace, and not evil. *Jeremiah xxix. 11.*

In restless hurries *thoughtlessly* they live,  
At substance oft unmoved, for shadows grieve. *Gar.*

His face was a *thought* longer than the exact sym-  
metrians would allow. *Sidney.*

If our own be but equal, the law of common in-  
dulgence alloweth us to think them at the least half  
a *thought* the better, because they are our own. *Hooker.*

I told him what I *thought*. *Shakspeare. Othello.*

Who is so gross  
That cannot see this palpable device?  
Yet who so bold, but says, he sees it not?  
Bad is the world; and all will come to nought,  
When such ill dealings must be seen in *thought*.  
*Shakspeare.*

Heaven's face doth glow  
With tristful visage; and, as 'gainst the doom  
Is *thoughtick* at the act. *Id. Hamlet.*

Hawis was put in trouble, and died with *thought*  
and anguish before his business came to an end.  
*Bacon's Henry VII.*

For our instruction to impart  
Things above earthly *thought*. *Milton.*

A needle pierced through a globe of cork, cut  
away by degrees, will swim under water, yet not  
sink unto the bottom: if the cork be a *thought* too  
light to sink under the surface, the water may be  
attenuated with spirits of wine. *Browne.*

Pride, of all others the most dangerous fault,  
Proceeds from want of sense, or want of *thought*.  
*Roscommon.*

His goodly fabrick fills the eye,  
And seems designed for *thoughtless* majesty:  
*Thoughtless* as monarch oaks that shade the plain,  
And spread in solemn state supinely reign. *Dryden.*

*Thought*, if translated truly, cannot be lost in  
another language; but the words that convey it to  
our apprehension, which are the image and orna-  
ment of that *thought*, may be so ill chosen as to  
make it appear unhandsome. *Id.*

On these he mused within his *thoughtful* mind,  
And then resolved what Faunus had divined. *Id.*

The *thoughts* of a soul that perish in thinking.  
*Locke.*

*Thoughtful* of gain, I all the live-long day  
Consume in meditation deep. *Phillips.*

Are my friends embarked?  
Can any thing be *thought* of for their service?  
Whilst I yet live, let me not live in vain. *Addison.*

One may often find as much *thought* on the reverse  
of a medal as in a canto of Spenser. *Id. On Medals.*

And cards are dealt, and chessboards brought,  
To ease the pain of coward *thought*. *Prior*

In awful pomp, and melancholy state,  
See settled Reason on the judgment-seat;  
Around her crowd Distrust, and Doubt, and Fear,  
And *thoughtful* Foresight, and tormenting Care. *Prior.*

It is something peculiarly shocking to see gray  
hairs without remorse for the past, and *thoughtless*  
of the future. *Rogers.*

While the nervous fibres preserve their due tension  
and firmness, and the spirits are transmitted to them  
from the brain, endowed with due strength, swiftness,  
and vivacity, and suffered to attend their duty, with-  
out the avocations of *thoughtfulness* and intense con-  
templation, the concoction of the meats is well per-  
formed. *Blackmore.*

War, horrid war, your *thoughtful* walks invades,  
And steel now glitters in the muses' shades. *Pope.*

One only couplet fraught  
With some unmeaning thing they call a *thought*. *Id.*

My giddiness seized me; and, though I now totter,  
yet I think I am a *thought* better. *Suiff.*

THOINIA, in botany, a genus of plants  
belonging to the class of diandria and order of  
monogynia. The corolla is quadripetalous; the  
calyx quadripartite, and the anther sessile.  
There is only one species discovered, *T. nutans*.

THOUSAND, *adj.* or *n. s.* } Sax. *þugenð*;  
THOUSANDTH, *adj.* } Belg. *duysend*.  
The number of ten hundred: a great number: the  
ordinal of a thousand.

So fair, and *thousand*, *thousand* times more fair  
She seemed, when she presented was to sight. *Spenser.*

He that will divide a minute into a *thousand* parts,  
and break but a part of a *thousandth* part in the af-  
fairs of love, it may be said of him, that Cupid hath  
clapt him o' th' shoulder, but I'll warrant him heart  
whole. *Shakspeare. As You Like It.*

About three *thousand* years ago, navigation of the  
world for remote voyages was greater than at this  
day. *Bacon.*

For harbour at a *thousand* doors they knocked,  
Not one of all the *thousand* but was locked. *Dryden.*

Such is the poet's lot: what luckier fate  
Does on the works of grave historians wait?  
More time they spend, in greater toils engage,  
Their volumes swell beyond the *thousandth* page. *Id.*

Though he regulates himself by justice, he finds a  
*thousand* occasions for generosity and compassion.  
*Addison's Spectator.*

The French hugonots are many *thousand* witnesses  
to the contrary; and I wish they deserved the *thou-  
sandth* part of the good treatment they have received.  
*Suiff's Miscellanies.*

How many *thousands* pronounce boldly on the  
affairs of the publick, whom God nor men never qual-  
ified for such judgment. *Watts.*

THRACE, a country very frequently men-  
tioned by the Greek and Latin writers, deriving  
its name, according to Josephus, from Tiras, one  
of the sons of Japhet. It was bounded on the  
north by Mount Hæmus; on the south by the  
Ægean Sea; on the west by Macedonia and the  
river Strymon; and on the east by the Euxine  
Sea, the Hellespont, and the Propontis. The  
Thracian Chersonesus is a peninsula enclosed on  
the south by the Ægean Sea, on the west by the

gulf of Melas, and on the east by the Hellespont; being joined on the north to the continent by a neck of land about thirty-seven furlongs broad. The inland parts of Thrace are very cold and barren, the snow lying on the mountains the greatest part of the year; but the maritime provinces are productive of all sorts of grain and necessaries of life; and withal so pleasant that Mela compares them to the most fruitful and agreeable countries of Asia. The ancient Thracians were deemed a brave and warlike nation, but of a cruel and savage temper; being, according to the Greek writers, strangers to all humanity and good nature. It was to the Thracians, however, that the Greeks were chiefly indebted for the polite arts that flourished among them; for Orpheus, Linus, Museus, Thamyris, and Eumolpus, all Thracians, were the first, as Eustathius informs us, who charmed the inhabitants of Greece with their eloquence and melody, and persuaded them to exchange their fierceness for a sociable life and peaceful manners; nay, a great part of Greece was anciently peopled by the Thracians. Tereus, a Thracian, governed at Daulis in Phocis. See *PHILOMELA*. From thence a body of Thracians passed over to Eubœa, and possessed themselves of that island. Of the same nation were the Aones, Tembices, and the Hyanthians, who made themselves masters of Bœotia; and great part of Attica itself was inhabited by Thracians, under the command of the celebrated Eumolpus. Thrace was anciently divided into a number of petty states, which were first subdued by Philip II. of Macedonia. On the decline of the Macedonian empire, the country fell under the power of the Romans. It continued under subjection to them till the irruption of the Turks, in whose hands it still remains.

**THRALL**, *n. s. & v. a.* } Sax. *þræl* A slave;  
**THRALL'DOM**, *n. s.* } one who is in the  
 power of another: to enslave: not in use: thrall-  
 dom is, slavery; servitude.

This country, in a great part desolate, groaneth under the Turkish *thrall'dom*. *Sandys.*

How far am I inferior to thee in the state of the mind! and yet know I that all the heavens cannot bring me to such *thrall'dom*. *Sidney.*

No *thralls* like them that inward bondage have. *Id.*

But sith she will the conquest challenge need,  
 Let her accept me as her faithful *thrall*. *Spenser.*

Let me be a slave t' atchieve the maid,  
 Whose sudden sight hath *thrall'd* my wounded eye. *Shakspeare.*

He swore with sobs,  
 That he would labour my delivery.  
 —Why so he doth, when he delivers you  
 From this earth's *thrall'dom* to the joys of heaven. *Id.*

I know I'm one of Nature's little kings;  
 Yet to the least and vilest things am *thrall'd*. *Davies.*

Her men took land,  
 And first brought forth Ulysses, bed, and all  
 That richly furnish it; he still in *thrall*  
 Of all-subduing sleepe. *Chapman.*

Statesmen purge vice with vice, and may corrode  
 The bad with bad, a spider with a toad.  
 For so ill *thralls* not them, but they tame ill,  
 And make her do much good against her will. *Downe.*

The author of nature is not *thrall'd* to the laws of nature. *Drummond.*

That we may so suffice his vengeful ire,  
 Or do him mightier service, as his *thralls*  
 By right of war, whate'er his business be. *Milton.*

And laid about him, till his nose  
 From *thrall* of ring and cord broke loose. *Hudibras.*  
 He shall rale, and she in *thrall'dom* live. *Dryden.*

They tell us we are all born slaves; life and *thrall'dom* we entered into together, and can never be quit of the one till we part with the other. *Locke.*

**THRAPSTON**, a town of England, in the county of Northampton, with a market on Tuesday, seated on the river Nen, which is navigable hence up to Northampton, and down to the sea by Wisbeach. There is a bridge here over the river. Two miles distant is Drayton, the seat of his grace the duke of Dorset; and four miles hence lies Lilford Hall, the seat of lord Lilford. Eight miles north of Higham-Ferrers, and seventy-five N. N. W. of London. Distance to Peterborough twenty-one miles, to Stamford twenty-two, to Huntingdon seventeen, to Northampton twenty-two. Long. 0° 15' W., lat. 52° 26' N.

**THRASH**, *v. a. & v. n.* } Sax. *þanfan*; Teut.  
**THRASH'ER**, *n. s.* } *dreschen*; Belg. *ders-*

**THRASH'INGFLOOR**. *chen.* To beat corn from the chaff; to beat; drub: as a verb neuter, to labor; drudge: a thrasher is, he who thrashes: thrashingfloor, the place where this operation is performed. Written variously *thrash* or *thresh*, but *thrash* is more agreeable to etymology.

Gideon *thresh'd* wheat to hide it. *Judges viii. 11.*  
 Here be oxen for burnt sacrifice, and *threshing* instruments for wood. *2 Samuel xxiv. 22.*

First *thrash* the corn, then after burn the straw. *Shakspeare.*

Our soldiers, like a lazy *thrasher* with a flail,  
 Fell gently down, as if they struck their friends. *Id.*

Thou scurvy valiant ass! thou art here but to *thrash* Trojans, and thou art bought and sold among those of any wit like a Barbarian slave.

*Id. Troilus and Cressida.*  
 In the sun your golden grain display,  
 And *thrash* it out, and winnow it by day. *Dryden.*

I rather would be Mevius, *thresh* for rhimes  
 Like his, the scorn and scandal of the times,  
 Than that Philippick fatally divine,  
 Which is inscribed the second, should be mine. *Id.*

In vain the hinds the *threshing-floor* prepare,  
 And exercise their flails in empty air. *Id.*

The careful ploughman doubting stands,  
 Lest on the *threshing-floor* his sheaves prove chaff. *Milton.*

Gideon was taken from *threshing*, as well as Cincinnatus from the plough, to command armies.

*Locke on Education.*  
 Not barely the plowman's pains, the reaper's and *thrasher's* toil, and the baker's sweat, is to be counted into the bread we eat: the labour of those employed about the utensils must all be charged. *Locke.*

This is to preserve the ends of the bones from an incalascency, which they being hard bodies would contract from a swift motion; such as that of running or *threshing*. *Ray.*

Out of your clover well dried in the sun, after the first *threshing*, get what seed you can. *Mortimer.*  
 Here too the *thrasher*, brandishing his flail,  
 Bespeaks a master. *Dodsley.*



THRASHING is the act of beating out corn or other produce from the straw. The flail was the only implement formerly used; but it is now become much too tedious and expensive, as well as liable to many other objections, and always, besides leaving many in the ear, bruises a great many seeds. It has been attempted to avoid these inconveniences by proper machines provided with a number of flails, or other parts answering the same purpose, made to move by the power of water, wind, steam, or horses.

A flail which was used by the Romans, called *baculus*, *fustis*, or *pertica*, was probably nothing more than a cudgel or pole. The thrashing machine, which was called *tribula*, or *tribulum*, and sometimes *traba*, was a kind of sledge made of boards joined together, and loaded with stone or iron. Horses were yoked to this machine, and a man was seated upon it to drive them over the sheaves of corn. In the greatest part of France the flail is used for thrashing; but in the southern districts it is generally performed, as in the east, by the feet of animals: animals are also used for the same purpose in Spain, Italy, the Morea, and the Canaries. In hot climates the grains do not adhere so firmly to the stalk as in cold countries, and therefore animals are so frequently employed. The operation is performed in this manner:—The sheaves, after being opened, are spread in such a manner that the ears of the corn are laid as much uppermost as possible, and a man, standing in the centre, holds the halters of the cattle, which are made to trot round as in a manege; whilst other men with forks shake the straw up from time to time, and the cattle are trotted over it again and again till they have beaten out all the grain.

The first machine attempted in modern times was invented at Edinburgh, about 1732, by Michael Menzies. It consisted of a number of instruments like flails, fixed in a moveable beam, and inclined to it at an angle of  $10^{\circ}$ . On each side of the beam in which the flails were fixed, floors or benches were placed for spreading the sheaves on. The flails were moved backwards and forwards upon the benches by means of a crank fixed on the end of an axle, which made about thirty revolutions in a minute. The second thrashing machine was invented by Mr. Michael Stirling, a farmer in the parish of Dunblane, Perthshire. In 1753, under the pretence of amusing his children, he formed in miniature a water mill, in which two iron springs, made to rise and fall alternately, represented the motion of two flails, by which a few stalks of corn put under them might be speedily thrashed. This plan he executed on a scale sufficiently large within two years after, making the springs about ten feet long, each of which had one end firmly screwed into a solid plank, and the other terminated in a round baton of solid iron, two feet long and above an inch in diameter. Under these the sheaves were conveyed gradually forward in a narrow channel or trough, by passing between two indented horizontal cylinders, similar to those now used in most of the thrashing mills in that part of the country, and called feeders. In this manner the thrashing was executed completely, and with considerable rapidity;

but as the operation was performed on a low floor, and no method contrived for carrying off the straw, the accumulation of it produced such confusion, and the removal of it was attended with such danger, that this scheme was very soon entirely abandoned.

Mr. Stirling, therefore, laying aside the iron springs with the feeders, and all the apparatus adapted to them, he retained only an outer or water wheel, with an inner or cog wheel moving on the same axle; to this inner wheel, which had forty-eight teeth or cogs, he applied a vertical trundle or pinion, with notches, the axle of which passed through a floor above the wheel, and having its upper pivot secured in a beam six feet above that floor: at the distance of three feet three inches above the floor, two straight pieces of squared wood, each four feet long, passed through the axle of the trundle at right angles, forming four arms, to be moved round horizontally. To these extremities of the arms were fixed four iron plates, each twenty inches long, and eight broad at the end next the arms, but tapering towards a point at the other end. This large horizontal fly, constituting four thrashes, was enclosed within a wooden cylindrical box three feet and a half high and eight feet in diameter. On the top of the box was an opening or port (two or three ports were made at first, but one was found sufficient) eight inches wide, and extending from the circumference a foot and a half towards its centre, through which the corn sheaves descended, being first opened and laid one by one on a board with two ledges gently declining towards the port; on which board they were moderately pressed down with a boy's hand, to prevent them from being too hastily drawn in by the repeated strokes of the thrashers. Within the box was an inclined plane, along which the straw and grain fell down into a wide wire riddle two feet square, placed immediately under a hole of nearly the same size. The riddle received a jerk at every revolution of the spindle from a knob placed on the side of it, and was instantly thrust backward by a small spring pressing it in the opposite direction. The short straw, with the grain and chaff which passed through the wide riddle, fell immediately into an oblong straight riddle, which hung with one end raised and the other depressed, and was moved by a contrivance equally simple with the other; and, having no ledge at the lower end, the long chaff which could not pass through the riddle dropped thence to the ground; while the grain and most of the chaff falling through the riddle into a pair of common barn-fanners that stood under it on the ground floor, the strong grain, the weak, and the chaff, were all separated with great exactness. The fanners were moved by a rope or band running circuitously in a shallow niche cut on the circumference of the cog-wheel. The straw collected gradually in the bottom of the box over the wide riddle, and through an opening two feet and a half wide, and as much in the height, left in that side of the box nearest the brink of the upper floor, was drawn down to the ground with a rake by the person or persons employed to form it into sheaves or rolls.

A third thrashing-mill was invented in 1772 by two persons nearly about the same time, and upon the same principles. Mr. Alderton who lived near Alnwick, and Mr. Smart, at Wark in Northumberland. The operation was performed by rubbing. The sheaves were carried round between an indented drum of about six feet diameter, and a number of indented rollers arranged round the circumference of the drum, and attached to it by means of springs; so that, while the drum revolved, the fluted rollers rubbed the corn off from the straw by rubbing against the flutings of the drum. But, as a considerable quantity of the grain was bruised in passing between the rollers, the machine was soon laid aside.

In 1776 an attempt was made by Mr. Andrew Meikle, an ingenious millwright in the parish of Tynningham, East Lothian, to construct a new machine upon the principles which had been adopted by Mr. Menzies. This consisted in making joints in the flails, which Mr. Menzies had formed without any. But this machine, after much labor and expense, was soon laid aside, on account of the difficulty of keeping it in repair, and the small quantity of work performed, which did not exceed one boll or six Winchester bushels of barley per hour. Some time after this Mr. Francis Kinloch, junior, of Gilmerton, having visited the machine invented in Northumberland, attempted an improvement upon it. He enclosed the drum in a fluted cover; and, instead of making the drum itself fluted, he fixed upon the outside of it four fluted pieces of wood, which, by means of springs, could be raised a little above the circumference of the drum, so as to press against the fluted covering, and thus rub off the ears of corn as the sheaves passed round between the drum and the fluted covering. But not finding this machine to answer his expectations (for it bruised the grain in the same manner as the Northumberland machine did), he sent it to Mr. Meikle, that he might, if possible, rectify its errors. Mr. Meikle, who had long directed his thoughts to this subject, applied himself with much ardor and perseverance to the improvement and correction of this machine; and, after spending a good deal of time upon it, found it was constructed upon principles so erroneous, that to improve it was impracticable.

At length Mr. Meikle's own genius led him to a model, different in principle from the machines which had already been constructed. This was made in 1785; and in 1786 the first thrashing machine on the same principles was erected near Alloa, in Stirlingshire, by Mr. George Meikle, the son of the inventor. This machine, in its most improved state, is very simple; yet Mr. Loudon, at this distance of time, says, 'none has been found to answer the purpose of separating the grain from the straw so well.'

The two-horse thrashing machine of this gentleman, with the new invented yoking apparatus, is the smallest size of horse engine which is made. From the limbers, or hanging pieces by which the cattle draw when working this machine, proceed the chains or ropes to which the horses are yoked, being united by an iron frame, placed upon a lever, having liberty to turn on a bolt;

one end of each of two single ropes is fixed to this iron frame, and upon their other ends are fixed small blocks; in each of which is placed a running sheeve; and over these sheeves pass double ropes or chains. One horse is yoked to these chains at the one arm, and the other at the other, so that the chains or ropes by which they draw, being connected by the blocks, and the sheeves having liberty to move either way, if one of the horses relax, immediately the other presses the collar to his shoulders. For instance, if the horse yoked to the chains at one arm were to relax, then the one yoked at the other would instantly take up his rope, and pull the collar hard to his shoulders, so that the lazy horse must either exert himself, or be drawn backward; until the hooks to which he is yoked rest on the limbers. Thus each horse spurs up his fellow, they being both connected by the ropes and sheeves; their exertions are united so as to form one power applied to the machine, instead of two powers, independent of one another. By this means the draught will always press the collars equally upon the horses' shoulders, and though they are working in a circle, yet the strains of the draught must press fair, or equal, on their shoulders, without twisting their body to either side. This advantage cannot be obtained in the common way of yoking horses in a thrashing machine.

**THRASONICAL**, *adj.* From *Thraso*, a boaster in old comedy. Boastful; bragging. Obsolete.

His humour is lofty, his discourse peremptory, his general behaviour vain, ridiculous, and *thrasonical*. *Shakespeare.*

**THRASYBULUS**, a renowned Athenian general and patriot, the deliverer of his country from the yoke of the thirty tyrants. He flourished about 294 B. C.

**THRASYMACHUS**, a Carthaginian, who was the pupil of Isocrates and Plato, and became a public teacher at Athens; but, failing of the success he had expected, he hanged himself.—*Juv. vii. 204.*

**THRASYMEDES**, a son of Nestor, king of Pylos, by Anaxibia, daughter of Bias; one of the Grecian chiefs who went against Troy.—*Hygin. Paus. ii. c. 26.*

**THRASYMENUS**, in ancient geography, a lake of Etruria, near Perusium, and not far from the Tiber. A bloody battle was fought near its banks, between the Carthaginians under Hannibal, and the Romans under Flaminius, A. U. C. 217, in which Hannibal was completely victorious, 15,000 Romans being killed, and 15,000 taken prisoners, while 10,000 fled mostly wounded.—*Liv. Polyb. Strabo, 5.* This lake is now called the lake of Perugia.

**THREAD**, *n. s. & v. a.* } *Sax. ðræð; Belg. Threadbare, adj. } draed; Teut. dret.*  
**THREAD'EN.** } A small line, cord, or twist; the rudiment of cloth; uniform course or tenor: to thread is, to pass through with a thread; to pierce: threadbare is, worn to the threads; trite: threaden, made of thread.

*Threadbare coat, and cobbled shoes he wore.*

*Spenser*



Let not Bardolph's vital thread be cut  
With edge of penny cord and vile reproach.

Shakspeare.

Thus out of season *threading* dark-eyed night. *Id.*

Being prest to the war,

Even when the nave of the state was touched,  
They would not *thread* the gates. *Id. Coriolanus.*

Behold the *threaden* sails,

Borne with th' invisible and creeping wind,  
Draw the huge bottoms through the furrowed sea.

Shakspeare.

Though need urged me never so,  
He not receive a *thread*, but naked go. *Chapman.*

If he understood trade, he would not have mentioned this *threadbare* and exploded project.

Child on Trade.

Though the slender *thread* of dyed silk looked on single seem devoid of redness, yet when numbers of these *threads* are brought together, their colour becomes notorious. *Boyle.*

Will any freedom here from you be borne,

Whose cloaths are *threadbare*, and whose cloaks are torn?

Dryden's Juvenal.

The art of pleasing is the skill of cutting to a *thread* betwixt flattery and ill-manners. *L'Estrange.*

The eagerness and trembling of the fancy doth not always regularly follow the same even *thread* or discourse, but strikes upon some other thing that hath relation to it. *Burnet.*

He who sat at a table with a sword hanging over his head but by one single *thread* or hair, surely had enough to check his appetite. *South.*

The gout being a disease of the nervous parts, makes it so hard to cure; diseases are so as they are more remote in the *thread* of the motion of the fluids. *Arbuthnot.*

The largest crooked needle, with a ligature of the size of that I have *threaded* it with, in taking up the spermatick vessels. *Sharp's Surgery.*

Many writers of moral discourses run into state topics and *threadbare* quotations, not handling their subject fully and closely. *Swift.*

A Thracian slave the porter's place maintained,  
Sworn foe to *threadbare* suppliants, and with pride  
His master's presence, nay, his name, denied. *Harte.*

|                      |  |
|----------------------|--|
| THREAT, or           | } Saxon <i>þreacian</i> ;<br>Isl. <i>þrættla</i> . To menace; denounce evil;<br>terrify, or attempt to terrify: the derivatives all corresponding. |
| THREAT'EN, v. a.     |  |
| THREAT'ENER, n. s.   |  |
| THREATING,           |  |
| THREAT'ENINGLY, adv. |  |
| THREAT'FUL, adj.     |  |

ing.  
That it spread no further, straitly *threaten* them that they speak henceforth to no man in this name. *Acts, iv. 18.*

Like as a warlike brigandine applide  
To fight, lays forth her *threatful* pikes afore,  
The engines which in them sad death do hide. *Spenser.*

Be stirring as the time; be fire with fire;  
*Threaten* the *threatener* and outface the brow  
Of bragging horriour. *Shakspeare. King John.*  
There is no terror, Cassius, in your *threats*. *Shakspeare.*

The honour that thus flames in your fair eyes,  
Before I speak, too *threateningly* replies. *Id.*

What, *threat* you me with telling of the king?  
Tell him, and spare not. *Id. Richard II.*

The emperor perceiving that his *threats* were little regarded, regarded little to *threaten* any more. *Hayward.*

Do not believe  
Those rigid *threats* of death: ye shall not die. *Milton.*

The fruit, it gives you life  
To knowledge by the *threat'ner*. *Id. Paradise Lost.*

The void profound  
Wide gaping, and with utter loss of being  
*Threatens* him. *Milton.*

Void of fear,  
He *threatened* with his long protended spear. *Dryden.*

Æneas their assault undaunted did abide,  
And thus to Lausus loud with friendly *threatening*  
cried. *Id. Virgil.*

This day black omens *threat* the brightest fair  
That e'er deserved a watchful spirit's care. *Pope.*

How impossible would it be for a master, that thus interceded with God for his servants, to use any unkind *threatenings* towards them, to damn and curse them as dogs and scoundrels, and treat them only as the dregs of the creation! *Law.*

**THREATENING LETTERS.** Knowingly to send any letter without a name, or with a fictitious name, demanding money, or any other valuable thing, or threatening, without any demand, to kill or fire the house of any person, is made felony without benefit of clergy. And sending letters, threatening to accuse any person of a crime punishable with death, transportation, pillory, or other infamous punishment, with a view to extort from him any money or other valuable chattels, is punishable, by stat. 30 Geo. II. c. 24, at the discretion of the court, with fine, imprisonment, pillory, whipping, or transportation for seven years.

|                          |  |
|--------------------------|--|
| THREE, <i>adj.</i>       | } Sax. <i>þrie</i> ; Goth. <i>thriæ</i> : Welsh and Erse, <i>tri</i> ; Latin <i>tres</i> . Two and one; any small number: the derivatives will be explained by the extracts: three piled means piled one on another. |
| THREE'FOLD,              |  |
| THREE'PENCE, n. s.       |  |
| THREE'PENNY, <i>adj.</i> |  |
| THREE'PILED,             |  |
| THREE'SCORE,             |  |
| THRICE, <i>adv.</i>      |  |

A *three-fold* cord is not easily broken.

*Ecclus. iv. 12.*

*Thrice* he assayed it from his foot to draw,  
And *thrice* in vain to draw it did assay,  
It booted nought to think, to rob him of his prey. *Spenser.*

Prove this a prosperous day, the *three-nooked*  
world  
Shall bear the olive freely.

*Shakspeare. Antony and Cleopatra.*

Away, thou *three-inched* fool; I am no beast. *Shakspeare.*  
A base, proud, shallow, beggarly, *three-suited*,  
filthy, worsted-stocking knave. *Id. King Lear.*

A *threepence* bowed would hire me,  
Old as I am, to queen it. *Id. Henry VIII.*  
*Threepiled* hyperboles; spruce affectation.

*Shakspeare.*

*Threescore* and ten I can remember well. *Id.*  
*Thrice* within this hour

I saw him down; *thrice* up again and fighting. *Id.*  
*Thrice* noble lord, let me intreat of you  
To pardon me. *Id. Taming of the Shrew.*

By a *threefold* justice the world hath been governed from the beginning: by a justice natural, by which the parents and elders of families governed their children, in which the obedience was called natural piety: again, by a justice divine, drawn from the laws of God; and the obedience was called conscience; and lastly, by a justice civil, begotten by both the former; and the obedience to this we call duty. *Raleigh.*

If you speak *three* words, it will *three* times report you the whole *three* words.

*Bacon's Natural History.*  
Thrice did he knock his iron teeth; thrice howl,  
And into frowns his wrathful forehead rowl.

*Cowley.*  
Great Atræus' sons, Tydides fixed above,  
With *three*-aged Nestor. *Creesh's Manilius.*

Their lives before the flood were abbreviated after,  
And contracted into hundreds and *threescores*.

*Browne.*  
By chace our long-lived fathers earned their food;  
Toil strung the nerves and purified the blood:  
But we their sons, a pampered race of men,  
Are dwindled down to *threescore* years and ten.

*Dryden.*  
Jove hurls the *three*-forked thunder from above.

*Addison.*  
Laying a caustick, I made an escar the compass  
of a *threepence*, and gave vent to the matter.

*Wiseman's Surgery.*  
A strait needle, such as glovers use, with a *three*-  
edged point, useful in sewing up dead bodies.

*Sharp.*  
These *three* and *three* with osier bands we tied.

*Pope.*  
A *threefold* offering to his altar bring,  
A bull, a ram, a boar. *Id. Odyssey.*

THREE RIVERS, DISTRICT OF, one of the divisions of Lower Canada, lies between those of Montreal and Quebec, and is bounded on the south by part of the line of 45° N. lat., and the ridge of mountains stretching to the north east; northward its limit is indefinite, or it may be presumed to have only the province boundary for its limit in that direction. Its breadth on the north side of the St. Lawrence, from the seigniory of Berthier to that of St. Anne, is fifty-two miles and a half; but on the south side, from Sorel to Deschailloirs, not more than fifty miles and a half. It contains the county of St. Maurice, and the greater part of Buckingham, forty seigniories and fiefs, thirty-two whole townships, part of eleven others that are divided by the district lines, thirty-two that are projected only, and twenty-two parishes. In the townships 824,679 acres have been granted in free and common socage. The cultivated part of the seigniories may be taken at a little more than one-third; but the townships fall short of the same proportion.

THREE RIVERS, a town of Lower Canada, situated on the north-west side of the river St. Maurice, at its confluence with the St. Lawrence. It derives its name from the entrance into the former river, being separated, by two islands lying at the mouth, into three channels. The town plot covers nearly 400 acres, forming a front of rather more than 1300 yards on the bank of the St. Lawrence. It stands on an exceedingly light and sandy soil, which extends also over the environs. The shops and warehouses are numerous, wherein may be had British goods of all denominations, and several inns afford to travellers respectable accommodations. The principal public buildings are the Ursuline Convent, Protestant and Catholic churches, the court-house, jail, and barracks.

THRENODY, or the Muses Thenodie, an ancient poem by Mr. James Adamson, containing many historical notices of Perth, and other places

in Scotland. It was republished, with learned historical notes, by the late Mr. James Cant, in 1773.

THIREPSIPPAS, a son of Hercules by Panope. Apollod.

THRESH'OLD, *n. s.* Sax. *þrescþal*; Goth. *throskold*. The ground or step under the door; entrance; gate.

Fair marching forth in honourable wise,  
Him at the threshold met she well did enterprize.

*Spenser.*  
Many men, that stumble at the threshold,  
Are well foretold that danger lurks within.  
*Shakspeare.*

Not better  
Than still at hell's dark threshold t' have sat watch,  
Unnamed, undreaded, and thyself half-starved?

*Milton.*  
There sought the queen's apartment, stood before  
The peacefold threshold, and besieged the door.

*Dryden.*  
THRID, *v. a.* Corrupted from *THREAD*,  
which see. To slide through a narrow passage.

Some *thrid* the mazy ringlets of her hair,  
Some hang upon the pendants of her ear. *Pope.*

THRILL, *v. a. & v. n.* Saxon *þryllan*; Swedish *drilla*. To pierce; bore; penetrate; drill:  
hence the quality of piercing: feel a piercing  
sensation; pain with such a sensation.

The cruel word her tender heart so thrilled,  
That sudden cold did run through every vein,  
And stormy horror all her senses filled  
With dying fit, that down she fell for pain.

*Spenser.*  
He pierced through his chafed chest  
With thrilling point of deadly iron brand,  
And lanced his lordly heart. *Id.*

The knight his *thrillant* spear again assayed  
In his brass-plated body to emboss. *Id.*

A servant, that he bred, thrilled with remorse,  
Opposed against the act; bending his sword  
To his great master. *Shakspeare. King Lear.*

A faint cold fear thrills through my veins,  
That almost freezes up the heat of life. *Shakspeare.*

Nature, that heard such sound,  
Beneath the hollow round  
Of Cynthia's seat, the airy region thrilling,

Now was almost won,  
To think her part was done. *Milton.*

A sudden horror chill  
Ran through each nerve, and thrilled in every vein.

*Addison.*

THRINAX, small Jamaica fan-palm, in botany, a genus of plants belonging to the natural class of palmæ, and order of strobilifolice. The calyx is sexdentate; there is no corolla; there are six stamina; the stigma is emarginate, and the berry monospermous. This plant was brought from Jamaica to Kew garden by Dr. William Wright.

THRIPS, in entomology, a genus of insects belonging to the order of hemiptera. The rostrum is obscure, or so small as to be scarcely perceptible. The antennæ are filiform and as long as the thorax. The body is slender, and of equal thickness in its whole length. The abdomen is reflexible, or bent upwards. The four wings are extended, incumbent upon the back of the insect, narrow in proportion to their length, and cross one another at the same distance from their base. The tarsi of the feet are composed of only two articulations. There are eleven



species mentioned by Gmelin; of which three are natives of Britain, viz. *T. pasciata*, *juniperana*, and *physapus*.

THRIVE, *v. n.* } Gothic *thriv*, *thrifa*.  
 THRIVER, *n. s.* } *Pret.* thrive, and some-  
 THRIFT, } times less properly  
 THRIFTILY, *adv.* } thrived, *part.* thriven.  
 THRIFTINESS, *n. s.* } To prosper; grow rich;  
 THRIFTLESS, *adj.* } advance in any thing  
 THRIFTY. } desired: one who pro-  
 pers: thrift is profit; gain; state of prospering;  
 and, by an easy transition, parsimony; frugality:  
 the derivatives that follow all correspond.

The better thou *thrive*st, the gladder am I.

*Tusser.*

Though some men do, as do they would,  
 Let *thrifty* do, as do they should. *Id.*

He came out with all his clowns, horst upon such  
 cart jades, and so furnished, as I thought with my-  
 self, if that were *thrift*, I wished none of my friends  
 or subjects ever to *thrive*. *Sidney.*

They by vices *thrive*,  
 Sail on smooth seas, and at their port arrive. *Sandys.*

If any other place you have,  
 Which asks much pains, but *thriftiness* to save. *Spenser.*

They in idle pomp and wanton play  
 Consumed their goods and *thriftless* hours,  
 And thrown themselves into these heavy stowers *Id.*

The rest unable to serve any longer, or willing to  
 fall to *thrift*, prove very good husbands. *Id. on Ireland.*

If lord Percy *thrive* not, ere the king,  
 Dismiss his power, he means to visit us. *Shakspeare.*

He shall spend mine honour with his shame,  
 As *thriftless* sons their scraping fathers' gold. *Id.*

I have five hundred crowns,  
 The *thrifty* hire I saved under your father. *Id.*  
 Should the poor be flattered?

No; let the candied tongue lick absurd pomp,  
 And crook the pregnant hinges of the knee,  
 Where *thrift* may follow fawning. *Id. Hamlet.*

Out of the present sparing and untimely *thrift*,  
 there grow many future inconveniences, and contin-  
 tual charge in repairing and re-edifying such im-  
 perfect slight-built vessels. *Raleigh.*

It grew amongst bushes, where commonly plants  
 do not *thrive*. *Bacon's Natural History.*

Some are censured for keeping their own, whom  
 tenderness how to get honestly teacheth to spend  
 discreetly; whereas such need no great *thriftiness* in  
 preserving their own, who assume more liberty in  
 exacting from others. *Wotton.*

He had so well improved that little stock his fa-  
 ther left, as he was like to prove a *thrifer* in the end. *Hayward.*

A careful shepherd not only turns flock into a  
 common pasture, but with particular adverture ob-  
 serves the *thriving* of every one. *Decay of Piety.*

O son! why sit we here, each other viewing  
 Idly, while Satan, our great author, *thrives*  
 In other worlds, and happier seats provides  
 For us, his offspring dear? *Milton's Paradise Lost.*

Thus heaven, though all-sufficient, shows a *thrift*  
 In his oeconomy, and bounds his gift. *Dryden.*

Experienced age in deep despair was lost,  
 To see the rebel *thrive*, ths: loyal crost. *Id.*

The *thriven* calves in meads their food forsake,  
 And render their sweet souls before the plenteous  
 rack. *Id. Virgil.*

Seldom a *thriving* man turns his land into money  
 to make the greater advantage. *Locke.*

Growth is of the very nature of some things: to  
 be and to *thrive* is all one with them; and they know  
 no middle season between their spring and their fall. *South.*

Such a care hath always been taken of the city  
 charities, that they have *thriven* and prospered gradu-  
 ally from their infancy down to this very day. *Atterbury's Sermons.*

A little hope—but I have none.

On air the poor camelions *thrive*:  
 Denied even that, my love can live. *Granville.*

In the fat age of pleasure, wealth, and ease,  
 Sprung the rank weed, and *thrived* with large in-  
 crease. *Pope's Essay on Criticism.*

Cromartie after fourscore went to his country-  
 house to live *thrifty*, and save up money to spend  
 at London. *Swift.*

Lest he should neglect his studies  
 Like a young heir, the *thrifty* goddess,  
 For fear young master should be spoiled,  
 Would use him like a younger child. *Id.*

Diligence and humility is the way to *thrive* in the  
 riches of the understanding, as well as in gold. *Watt's Logic.*

THROAT, *n. s.* Sax. *þrote*, *þrota*; Belg.  
*strote*; Tent. *trossel*. The forepart or passage  
 of the neck.

These bred up amongst the Englishmen, when  
 they become kern, are made more fit to cut their  
 throats. *Spenser.*

The gold I give thee will I melt, and pour  
 Down thy ill-uttering throat. *Shakspeare.*

A trumpeter that was made prisoner, when the  
 soldiers were about to cut his throat, says, Why  
 should you kill a man that kills nobody? *L'Estrange.*

Her honour and her courage tried,  
 Calm and intrepid in the very throat  
 Of sulphurous war, on Tenier's dreadful field. *Thomson.*

Larissa's gutturals convulsed his throat;  
 He smoothed his voice to the Bizantine note. *Harte.*

THROB, *v. n. & n. s.* Gr. *θροβειν*, Minshieu  
 and Junius; formed in imitation of the sound—  
 Skinner. Johnson adds (not very probably)  
 perhaps contracted from throw up. To heave the  
 breasts with strong emotion; beat; palpitate:  
 the beat or stroke of palpitation.

She sighed from bottom of her wounded breast,  
 And after many bitter throbs did throw,  
 With lips full pale, and faltering tongue oppress. *Spenser.*

Here may his head live on my *throbbing* breast. *Shakspeare.*

How that warmed me! How my *throbbing* heart  
 Leapt to the image of my father's joy,  
 When you should strain me in your folding arms! *Smith.*

Thou talkest like one who never felt  
 The impatient throbs and longings of a soul  
 That pants and reaches after distant good. *Addison's Cat.*

In the depending orifice there was a *throbbing* of  
 the arterial blood, as in an aneurism, the blood being  
 choaked in by the contused flesh. *Wiseman's Surgery.*

THROE, *n. s. & v. a.* Sax. *þropian*, to suf-  
 fer. Also written throw. The pain of child-  
 birth; any extreme pain, struggle, or effort: to  
 to put into agonies, (obsolete).

O man! have mind of that most bitter *throe*,  
For as the tree does fall so lies it ever low. *Spenser.*

To ease them of their griefs,  
Their fears of hostile strokes, their aches, losses,  
Their pangs of love, with other incident *throes*,  
That nature's fragile vessel doth sustain  
In life's uncertain voyage, I will do  
Some kindness to them. *Shakespeare. Timon.*

My womb pregnant and now excessive grown,  
Prodigious motion felt and rueful *throes*. *Milton.*  
His persuasive and practical tract, which was ex-  
ceeding agreeable to his desires, cost him most *throes*  
and pangs of birth. *Fell.*

Not knowing 'twas my labour, I complain  
Of sudden shootings, and of grinding pain,  
My *throes* come thicker, and my cries increased.

*Dryden.*

**THRONE**, *n. s. & v. a.* Lat. *thronus*; Greek  
*θρονος*. A royal seat; the seat of a king, or of  
a bishop of the established church: to place on  
such a seat.

Boundless intemperance hath been  
The' untimely emptying of the happy *throne*;  
And fall of many kings. *Shakespeare. Macbeth.*

They have, as who have not, whom their great  
stars

*Throned* and set high? *Shakespeare.*

The' eternal Father from his *throne* beheld  
Their multitude. *Milton.*

True image of the father, whether *throned*  
In the bosom of bliss, and light of light,  
Conceiving or remote from heaven, enshrined  
In fleshy tabernacle and human form. *Id.*

Stonehenge, once, thought a temple, you have  
found

A *throne* where kings were crowned. *Dryden.*

We have now upon the *throne* a king willing and  
able to correct the abuses of the age. *Davenant.*

Bishops preached on the steps of the altar stand-  
ing, having not as yet assumed the state of a *throne*.

*Ayliffe's Parergon.*

He *throned* in glass, and named it Caroline.

*Pope.*

**THRONIUM**, an ancient town of Phocis,  
seated at the mouth of the Boagrius, where that  
river falls into the Sinus Maliaicus. Liv. 36, c.  
20; Strabo, ix.; Plin. iv. c. 7.

**THRONG**, *n. s., v. n., & v. a.* Saxon *þrang*,  
from *þringan*, to press. A crowd; a multitude  
pressing against each other: to crowd: to op-  
press or incommode with crowding.

The multitude *throng* thee and press thee.

*Luke viii. 45.*

Let us on heaps go offer up our lives:

We are enow yet living in the field,

To smother up the English in our *throngs*.

*Shakespeare.*

I'll say thou hast gold:

Thou wilt be *thronged* too shortly.

*Id.*

A *throng*

Of thick short sobs in thundering volleys float,

And roul themselves over her lubrick throat

In panting murmurs. *Crashaw.*

All access was *thronged*, the gates

Thick swarmed. *Milton.*

This book, the image of his mind,

Will make his name not hard to find.

I wish the *throng* of great and good

Made it less easily understood. *Waller.*

With studious thought observed the' illustrious  
*throng*,

In nature's order as they passed along;

Their names, their fates. *Dryden's Æneid.*

His mother could no longer bear the agitations of  
so many passions as *thronged* upon her, but fell upon  
his neck, crying out, My son! *Tatler.*

**THROSTLE**, *n. s.* Saxon *þrostele*. The  
thrush; a small singing bird.

The *throstle* with his note so true,  
The wren with little quill. *Shakespeare.*

The black-bird and *throstel* with their melodious  
voices bid welcome to the cheerful spring.

*Walton's Angler.*

**THROTTLE**, *n. s. & v. a.* From throat. The  
windpipe: to seize by the throat; choke; suf-  
focate.

I have seen them shiver and look pale,  
Make periods in the midst of sentences,  
*Throttle* their practised accents in their fears,  
And, in conclusion, dumbly have broke off.

*Shakespeare.*

As when Antæus in Irassa strove  
With Jove's Alcides, and oft foiled still rose,  
Receiving from his mother earth new strength,  
Fresh from his fall and fiercer grapple joined,  
*Throttled* at length in the air, expired and fell.

*Milton.*

At the upper extreme it hath no larynx or *throttle*  
to qualify the sound. *Browne's Vulgar Errors.*

The *throttling* quinsy 'tis my star appoints  
And rheumatism I send to rack the joints. *Dryden.*

*Throttle* thyself with an ell of strong tape,  
For thou hast not a groat to atone for a rape.

*Swift.*

**THROUGH**, *prep. & adv.*

**THROUGH'BRED**, *adj.*

**THROUGH'LIGHTED**,

**THROUGH'LY**, *adv.*

**THROUGH'OUT**, *prep. & adv.*

**THROUGH'PACED**, *adj.*

or compass; by-transmission; by means or  
agency of: as an adverb, from one end or side  
to the other; to the end: the compounds are of ob-  
vious meaning, and (except throughout) not often  
used.

By much slothfulness the building decayeth, and  
*through* idleness of the hands the house droppeth  
*through*. *Ecclesi. x.*

Thus it fareth even clean *throughout* the whole  
controversy, about that discipline which is so ear-  
nestly urged. *Hooker.*

The sight so *thoroughly* him dismayed,  
That nought but death before his eyes he saw.

*Spenser.*

The strong *through* pleasure soonest falls, the weak  
*through* smart. *Id.*

You will not make this a general rule to debar  
such from preaching the gospel, as have *through* in-  
firmity fallen. *Whitgift.*

You'd be so lean that blasts of January  
Would blow you *through* and *through*. *Shakespeare.*  
Inquire how metal may be tinged *through* and  
*through*, and with what, and into what colours.

*Bacon.*

Rice must be *thoroughly* boiled in respect of its  
hardness. *Id.*

There followed after the defeat an avoiding of all  
Spanish forces *throughout* Ireland. *Id.*

For bed then next they were,  
All *thoroughly* satisfied with compleat cheare.

*Chapman.*

O for a clap of thunder, as loud

As to be heard *throughout* the universe,

To tell the world the fact, and to applaud it!

*Ben Jonson.*

That the best pieces be placed where are the fewest



lights; therefore not only rooms windowed on both ends, called *throughlighted*, but with two or more windows on the same side, are enemies to this art.

*Wotton's Architecture.*

Subdue it, and *throughout* dominion hold

Over fish of the sea, and fowl of the air. *Milton.*

Pointed satire runs him *through* and *through*.

*Oldham.*

He hath been so successful with common heads, that he hath led their belief *through* all the works of nature.

*Browne.*

He is very dextrous in puzzling others, if they be not *throughpaced* speculators in those great theories.

*More.*

Though it be somewhat singular for men truly and *thoroughly* to live up to the principles of their religion, yet singularity in this is a singular commendation.

*Tillotson.*

No less wisdom than what made the world can *thoroughly* understand so vast a design.

*Id.*

*Through* these hands this science has passed with great applause.

*Temple.*

His youth and age

All of a piece *throughout*, and all divine. *Dryden.*

A simplicity shines *through* all he writes. *Id.*

Some *through* ambition, or *through* thirst of gold, Have slain their brothers, and their country sold.

*Id.*

To understand the mind of him that writ is to read the whole letter *through*, from one end to the other.

*Locke.*

A *through-bred* soldier weighs all present circumstances and all possible contingents.

*Grew's Cosmologia.*

Every man brings such a degree of this light into the world with him, that though it cannot bring him to heaven, yet it will carry him so far that if he follows it faithfully he shall meet with another light, which shall carry him quite *through*.

*South.*

To him, to him 'tis given,

Passion, and care, and anguish to destroy:

*Through* him soft peace, and plenitude of joy,

Perpetual o'er the world redeemed shall flow.

*Prior.*

The same thing happened when I removed the prism out of the sun's light, and looking *through* it upon the hole shining by the light of the clouds beyond it.

*Newton.*

Impartially inquire how we have behaved ourselves *throughout* the course of this long war.

*Atterbury.*

Material things are presented only *through* their senses; they have a real influx on these, and all real knowledge of material things is conveyed into the understanding *through* these senses.

*Cheyne's Philosophical Principles.*

THROW, *v. a., v. n., & n. s.* } *Pret. threw;*

THROWER, *n. s.* } *part. pass.*

thrown. Sax. *þrāpan*. To fling; cast; to send to a distant place by a projectile force: toss: cast; taking *about*, *away*, *by*, *down*, *off*, *out*, and *up*, as prepositions: the noun substantive corresponding.

Shimei *threw* stones at him, and cast dust.

2 Sam. xvi. 13.

A poor widow *threw* in two mites, which make a farthing.

Mark xii. 42.

Now unto despair I 'gin to grow,

And mean for better wind about to *throw*. *Spenser.*

She *throws* out thrilling shrieks, and shrieking cries.

*Id.*

Prieanes *threw* down upon the Turks fire and scalding oil.

*Knolles's History of the Turks.*

Learn more than thou trowest,  
Set less than thou *throwest*. *Shakspeare. King Lear*

To arms; for I have *thrown*

A brave defiance in king Henry's teeth.

*Id. Henry V.*

*Throw* out our eyes for brave Othello,

Even till we make the aerial blue

An indistinct regard.

*Id. Othello.*

If Hercules and Lichas play at dice

Which is the better man, the greater *throw*

May turn by fortune from the weaker hand,

So is Alcides beaten by his page. *Shakspeare.*

Fate, against thy better disposition,

Hath made thy person for the *thrower* out

Of my poor babe.

*Id. Winter's Tale.*

The top he tore

From off a huge rock; and so right a *throw*

Made at our ship, that just before the prow

It overflowed and fell.

*Chapman.*

It can but shew

Like one of Juno's disguises; and,

When things succeed, be *thrown* by, or let fall.

*Ben Jonson.*

Calumniate stoutly; for, though we wipe away with never so much care the dirt *thrown* at us, there will be left some sulliage behind.

*Decay of Piety.*

In time of temptation be not busy to dispute, but rely upon the conclusion, and *throw* yourself upon God, and contend not with him but in prayer.

*Taylor's Holy Living.*

He that will *throw* away a good book because not gilded, is more curious to please his eye than understanding.

*Taylor.*

His majesty departed to his chamber, and *threw* himself upon his bed, lamenting with much passion, and abundance of tears, the loss of an excellent servant.

*Clarendon.*

He fell

From heaven, they fabled, *thrown* by angry Jove

Sheer o'er the crystal battlements.

*Milton.*

Bad games are *thrown* up too soon,

Until they're never to be won.

*Hudibras.*

He warns them to avoid the courts and camps,

Where dilatory Fortune plays the jilt

With the brave, noble, honest, gallant man,

To *throw* herself away on fools and knaves. *Otway.*

A man had better *throw* away his care upon any thing else than upon a garden on wet or moist ground.

*Temple.*

Ariosto, in his voyage of Astolpho to the moon, has a fine allegory of two swans, who, when time had *thrown* the writings of many poets into the river of oblivion, were ever in a readiness to secure the best, and bear them aloft into the temple of immortality.

*Dryden.*

To threats the stubborn sinner oft is hard,

Wrapped in his crimes, against the storm prepared;

But, when the milder beams of mercy play,

He melts, and *throws* his cumbrous cloak away.

*Id.*

'Twould be better

Could you provoke him to give you the occasion,

And then to *throw* him off.

*Id. Spanish Fryar.*

He that begins to have any doubt of his tenets, received without examination, ought, in reference to that question, to *throw* wholly by all his former notions.

*Locke.*

If the sinner shall not only wrestle with this angel, but *throw* him too, and win so complete a victory over his conscience, that all these considerations shall be able to strike no terror into his mind, he is too strong for grace.

*South.*

If they err finally, it is like a man's missing his cast when he *throws* dice for his life; his being, his

happiness, and all is involved in the error of one throw. *Id.*

Can there be any reason why the household of God alone should throw off all that orderly dependence and duty by which all other houses are best governed? *Sprat.*

The air-pump, barometer, and quadrant, were thrown out to those busy spirits, as tubs and barrels are to a whale, that he may let the ship sail on, while he diverts himself with those innocent amusements. *Addison's Spectator.*

The only means for bringing France to our conditions is to throw in multitudes upon them, and overpower them with numbers.

*Id. State of the War.*

Poor youth! how canst thou throw him from thee? Lucia, thou knowest not half the love he bears thee.

*Addison.*

The well-meaning man should rather consider what opportunities he has of doing good to his country, than throw away his time in deciding the rights of princes. *Id.*

Must one rash word, the infirmity of age, Throw down the merit of my better years?

This the reward of a whole life of service? *Id.*

Experienced gamblers throw up their cards when they know the game is in the enemy's hand, without unnecessary vexation in playing it out.

*Id. Freeholder.*

The Sirenum Scopuli are sharp rocks that stand about a stone's throw from the south side of the island.

*Addison.*

Your youth admires

The throws and swellings of a Roman soul; Cato's bold flights, the extravagance of virtue. *Id.*

Life we must not part with foolishly: it must not be thrown up in a pet, nor sacrificed to a quarrel.

*Collier.*

The salts and oils in the animal body, as soon as they putrefy, are thrown off, or produce mortal distempers. *Arbutnot.*

Judge of the cause by the substances the patient throws up. *Id.*

She threw away her money upon roaring bullies that went about the streets.

*Id. History of John Bull.*

Suppose any particular order of the alphabet to be assigned, and the twenty-four letters cast at a venture, so as to fall in a line; it is many million of millions odds to one against any single throw that the assigned order will not be cast. *Bentley's Sermons.*

When Ajax strives some rock's vast weight to throw,

The line too labours, and the words move slow.

*Pope.*

The oddness of the proposition taught others to reflect a little; and the bill was thrown out. *Swift.*

There is no need to throw words of contempt on such a practice; the very description of it carries reproach. *Watts.*

The island Inarime contains, within the compass of eighteen miles, a wonderful variety of hills, vales, rocks, fruitful plains, and barren mountains, all thrown together in a most romantic confusion.

*Berkley to Pope.*

The world, where lucky throws to blockheads fall, Knaves know the game, and honest men play all.

*Young.*

THRUM, *n. s. & v. n.* *Isl. thraum*, the end of any thing. The ends of weavers' threads; any coarse yarn: to grate; play coarsely.

O fates, come, come,

Cut thread and thrum,

Quail, crush, conclude and quell. *Shakspeare.*

All rooss hath here and there little stalks, besides the low thrum. *Bacon's Natural History.*

Blunderbusses, planted in every loop-hole, go off constantly at the squeaking of a fiddle and the thrumming of a guitar. *Dryden's Spanish Fryar.*

Would our thrum capped ancestor's find fault For want of sugar-tongs, or spoons for salt? *King.*

THRUSH, *n. s.* } *Sax. ȝpurc; Lat. turdus.*  
THRUS'TLE, } A small singing-bird.

Of singing-birds they have linnets, goldfinches, blackbirds, and thrushes.

*Carew's Survey of Cornwall.*

Pain, and a fine thrush, have been severally endeavouring to call off my attention; but both in vain.

*Pope.*

No thrushes shrill the bramble bush forsake; No chirping lark the welkin sheen invokes. *Gay.*

THRUST, *v. a., v. n., & n. s.* *Lat. trusito.* To push any thing into matter, or between close bodies; to compress; impel; urge; obtrude: as a verb neuter, make a hostile push; squeeze in; intrude: a thrust is a hostile push or attack.

When the ass saw the angel, she thrust herself unto the wall, and crusht Balaam's foot.

*Numbers xxii. 25.*

He thrust the fleece together, and wringed the dew out of it. *Judges, vi. 38.*

She caught him by the feet; but Gehazi came near to thrust her away. *2 Kings iv. 27.*

Thrust in thy sickle, and reap. *Rev. xiv. 15.*

Zelmane, hearkening to no more, began with such witty fury to pursue him with blows and thrusts, that nature and virtue commanded him to look to his safety. *Sidney.*

They should not only not be thrust out, but also have estates and grants of their lands new made to them. *Spenser.*

The miserable men which shrunk from the work were again beaten forward, and presently slain, and fresh men still thrust on.

*Knolles's History of the Turks.*

When the king comes, offer him no violence, Unless he seek to thrust you out by force.

*Shakspeare.*

We make guilty of our disasters the sun, the moon, and stars, as if we were villains on necessity, and all that we are evil in by a divine thrusting on.

*Id. King Lear.*

That thrust had been mine enemy indeed, But that my coat is better than thou knowest.

*Shakspeare.*

I go to meet

The noble Brutus, thrusting this report Into his ears.

*Id. Julius Cæsar.*

Rich, then lord chancellor, a man of quick and lively delivery of speech, but as of mean birth so prone to thrust forwards the ruin of great persons, in this manner spake. *Hayward.*

Young, old, thrust there,

In mighty concourse. *Chapman's Odyssey.*

There is one thrust at your pure, pretended mechanism. *More's Divine Dialogues.*

To justify his threat, he thrusts aside The crowd of centaurs, and redeems the bride.

*Dryden.*

Polites Pyrrhus with his lance pursues, And often reaches, and his thrusts renews. *Id.*

I'll be a Spartan while I live on earth; But, when in heaven, I'll stand next Hercules, And thrust between my father and the god. *Id.*

Should he not do as rationally, who took physick from any one who had taken on himself the name of physician, or thrust himself into that employment?

*Locks.*



Not all,

Who like intruders *thrust* into their ser. c.  
Participate their sacred influence. *Rowe.*

**THRYALLIS**, in botany, a genus of plants belonging to the class of decandria, and order of monogynia; and in the natural method ranging under the thirty-eighth order, tricoceæ. The calyx is quinquepartite; there are five petals, and the capsule is tricocous. There is only one species known, viz. *T. Brasiliensis*, a native of Brasil.

**THRYFALLOW**, *v. a.* Thrice and fallow. To give the third ploughing in summer.

*Thryfallow* betime for destroying of weed,  
Let thistle and docke fall a blooming and seed.

*Tusser.*

**THRYON**, an ancient town of Messenia, near the banks of the Alpheus. Hom. II. ii. Strabo viii.

**THRYUS**, an ancient town of Peloponnesus, near Elis. Lempr.

**THUANUS** (Jacobus Augustus), or James Augustus Dr. Thou, youngest son of the president de Thou, was born in 1553; and, having finished his studies and travels, was made president a-Mortier, and took possession thereof in 1595. He was employed in several important offices of state, and in reforming the university of Paris; which he discharged with so much prudence that he was esteemed the Cato of his age, and the ornament of France. He wrote the history of his own time, in Latin, from 1543 to 1608, in 138 books; a work, both for subject and style, worthy of the ancients. He also left *Memoirs of his own Life*, besides poems; and died at Paris, 1617.

**THUCLES**, the leader of the first Greek colony who settled in Sicily. See SICILY.

**THUCYDIDES**, a celebrated Greek historian, born at Athens 471 years B. C. He was the son of Olorus, and grandson of Miltiades, who was descended from Miltiades the famous Athenian general, who married the king of Thrace's daughter. See MILTIADES. He was educated in philosophy and eloquence. His master in the former was Anaxagoras, in the latter Antiphon; one, by his description in the eighth book of his History, for power of speech almost a miracle, and feared by the people on that account. Suidas and Photius mention that when Herodotus related his history in public, a custom then common and many ages after, Thucydides felt such a pang of emulation, that he shed tears; Herodotus himself noticed it, and congratulated his father on having a son who showed so early an affection to the Muses. Herodotus was then twenty-nine years of age, Thucydides about sixteen. When the Peloponnesian war broke out, Thucydides, thinking it would prove a subject worthy of his labor, immediately began to keep a journal. This explains the reason why he has attended more to chronological order than to unity of design. During the war he was sent by his countrymen to relieve Amphipolis; but the quick march of Brasidas, the Lacedæmonian general, defeated his operations; and Thucydides, being thus unsuccessful, was banished from Athens, in the eighth year of this celebrated war; but during

his banishment, the general began to write an impartial history of the important events which had happened during his administration, and which still continued to agitate the states of Greece. This famous history is continued only to the twenty-first year of the war, and the remaining part of the time till the demolition of the walls of Athens, was described by Theopompus and Xenophon. Thucydides wrote in the Attic dialect, which has most vigor, purity, elegance, and energy. Thucydides died at Athens, where he had been recalled from his exile about 411 years B. C. The best edition of his works are those of Oxford, in fol. 1696, and of Duker, Amst. 1731, also fol.

**THUJA**, in botany, the arbor vitæ, or tree of life, a genus of plants, belonging to the class of monodelphia, and order of monœcia; and in the natural system ranging under the fifty-first order conifereæ. There are four species, viz. 1. *T. apylla*; 2. *T. dolabrata*; but the most remarkable are, 3. *T. occidentalis*, the common arbor vitæ, grows naturally in Canada, Siberia, and other northern countries. In some of the English gardens a few of these trees grow to a large size. 4. *T. orientalis*, the Chinese arbor vitæ, growing naturally in the northern parts of China, where it rises to a considerable height. The branches grow closer together, and are much better adorned with leaves, which are of a brighter green color, so make a much better appearance than the last species, and, being very hardy, is esteemed preferable to most of the evergreen trees with small leaves, for ornaments in gardens. The branches cross each other at right angles; the leaves are flat; but the single divisions of the leaves are slender, and the scales are smaller and lie closer over each other than those of the other. The cones are also much larger, and of a beautiful gray color: their scales end in acute inflexed points. These trees are propagated by seeds, layers or cuttings.

**THUILLIER** (Vincet), a learned French writer, born at Coucy, in 1685. He translated Polybius; and wrote a letter on the Bull Unigenitus. He died in 1786, aged 101.

**THUISTO**, a hero and deity of the ancient Germans.—Tacitus. Perhaps the same with Tuisco.

**THULE**, or **THYLE**, in ancient geography, an island in the most northern part of the German Ocean. Its situation was never accurately ascertained by the ancients: hence its present name is unknown by modern historians. Some suppose that it is the island now called Iceland, or part of Greenland, and others that it was Foula.

**THUMB**, *n. s.* Sax. *þuma*. The short strong finger answering to the other four.

Here I have a pilot's thumb,  
Wrecked as homeward he did come.

*Shakspeare. Macbeth.*

When he is dead you will wear him in thumb rings, as the Turks did Scanderbeg. *Dryden.*

The hand is divided into four fingers bending forwards, and one opposite bending backwards, called the *thumb*, to join with them severally or united, whereby it is fitted to lay hold of objects.

*Ray on the Creation.*

Every man in Turkey is of some trade; Sultan Achmet was a maker of ivory rings, which the Turks

wear upon their thumbs when they shoot their arrows.

*Broomie.*

**THUMMIM.** See **URIM**.

**THUMP**, *n. s., v. a., & v. n.* Ital. *thombo*. A hard heavy dead dull blow: to beat with such blows: to fall with such a blow.

Those bastard Britons, whom our fathers  
Have in their land beaten, bobbed, and thumped.  
*Shakspeare.*

And blundering still with smarting rump,  
He gave the knight's steed such a thump  
As made him reel. *Hudibras.*

Before, behind, the blows are dealt; around  
Their hollow sides the rattling thumps resound.

*Dryden.*

The watchman gave so great a thump at my door,  
that I awaked at the knock. *Tatler.*

Their thumps and bruises might turn to account,  
if they could beat each other into good manners.

*Addison.*

A watchman at midnight thumps with his pole.

*Swift.*

**THUNBERGIA**, in botany, a genus of plants belonging to the class of didynamia, and order of angiosperma. The calyx is double; the exterior one is diphyllous, and the interior one multipartite. The capsule is globose, beaked, and bilocular. There is only one species known, viz. *T. Capensis*, a native of the Cape of Good Hope.

**THUNDER**, *n. s., v. n.*, Saxon *ṭunber*,  
**THUNDERBOLT**, [*& v. a.*] *ṭunber*; Swed. *dunder*;  
**THUNDERCLAP**, *Belg. donder*;  
**THUNDERER**, *Fr. tonnerre*. The  
**THUNDEROUS**, *adj.* noise made by the  
**THUNDERSHOWER**, *n. s.* explosion of electric  
**THUNDERSTONE**, fire in the clouds; it  
**THUNDERSTRIKE**, *v. a.* is sometimes used

for both this and the lightning, or the entire electric storm; any loud or overpowering noise: to make such a noise; make thunder: as a verb active, to emit with noise or violence; to intimidate by noise: a thunderbolt, commonly means lightning; the bolts that fall from heaven; fulmination; denunciation: thunderclap, the explosion that produces thunder: thunderer, he who thunders: thunderous, producing thunder: the other compounds are of obvious meaning.

So soon as some few notable examples had thundered a duty into the subject's hearts, he soon shewed no baseness of suspicion. *Sidney.*

I remained as a man thunderstricken, not daring, nay not able, to behold that power. *Id.*

So fierce he laid about him, and dealt blows,  
On either side, that neither mail could hold  
Ne shield defend the thunder of his throws.

*Spenser.*

The kindly bird that bears Jove's thunderclap,  
One day did scorn the simple scarabee,

Proud of his highest service, and good hap,  
That made all other fowls his thralls to be. *Id.*

His dreadful name late through all Spain did  
thunder,

And Hercules' two pillars standing near  
Did made to quake and fear. *Id.*

If I had a thunderbolt in mine eye, I can tell who  
should down. *Shakspeare.*

How dare you, ghosts,  
Accuse the thunderer, whose bolt you know,  
Sky-planted, batters all rebelling coasts? *Id.*

Fear no more the lightning flash,  
Nor the all-dreaded thunderstone. *Id. Cymbeline.*

Fears from our hearts took

The very life; to be so thunderstruck

With such a voice.

*Chapman.*

Let the lightning of this thunderbolt, which hath  
been so severe a punishment to one, be a terror to  
all. *King Charles.*

He severely threatens such with the thunderbolt of  
excommunication. *Hakewill on Providence.*

My heart does beat,

As if 'twere forging thunderbolts for Jove. *Denham.*

His dreadful voice no more

Would thunder in my ears.

*Milton.*

The thunder,

Wringed with red lightning and impetuous rage,

Perhaps hath spent his shafts, and ceases now

To bellow through the vast and boundless deep. *Id.*

Look in and see each blissful deity,

How he before the thunderous throne doth lie. *Id.*

With the voice divine

Nigh thunderstruck, the exalted man, to whom

Such high attest was given, a while surveyed

With wonder.

*Id. Paradise Regainé.*

Had the old Greeks discovered your abode,

Crete had n't been the cradle of their god;

On that small island they had looked with scorn,

And in Great Britain thought the thunderer born.

*Waller.*

The conceit is long in delivering, and at last it  
comes like a thundershower, full of sulphur and  
darkness, with a terrible crack. *Stillingfleet.*

When suddenly the thunderclap was heard,

It took us unprepared, and out of guard. *Dryden.*

When the bold Typhoeus

Forced great Jove from his own heaven to fly,

The lesser gods, that shared his prosperous state,

All suffered in the exiled thunderer's fate. *Id.*

Who can omit the Gracchi, who declare

The Scipio's worth, those thunderbolts of war? *Id.*

Oracles severe

Were daily thundered in our general's ear

That by his daughter's blood we must appease

Diana's kindled wrath. *Id.*

Here will we face this storm of insolence,

Nor fear the noisy thunder; let it roll,

Then burst, and spend at once its idle rage. *Rowe.*

An archdeacon, as being a prelate, may thunder  
out an ecclesiastical censure. *Ayliffe.*

The most remarkable piece in Antonine's pillar is  
Jupiter Pluvius sending down rain on the fainting  
army of Marcus Aurelius, and thunderbolts on his  
enemies; which is the greatest confirmation of the  
story of the Christian legion. *Addison.*

'Tis said that thunderstruck Enceladus

Lies stretched supine.

*Id.*

In thundershowers the winds and clouds are often-  
times contrary to one another, especially if hail falls,  
the sultry weather below directing the wind one way,  
and the cold above the clouds another

*Derham's Physico-Theology.*

Like a black sheet the whelming billow spread,

Burst o'er the float, and thundered on his head.

*Pope.*

**THUNDER** is the noise occasioned by the ex-  
plosion of a flash of lightning, echoed back from  
the inequalities on the surface of the earth, in  
like manner as the noise of a cannon is echoed,  
and in particular circumstances forms a rolling  
lengthened sound.

It is universally allowed that the elevation of  
the electricity in different parts of the atmosphere  
is the cause of thunder, and, after what has been  
said on this subject in our article **ELECTRICITY**  
(see **Index**), it remains only to mention the  
theory by which some philosophers explain the



reason why rains are sometimes attended with thunder and sometimes not. In this part of Great Britain, and for a considerable way along the eastern coast, although thunder may happen at any time of the year, yet July is that in which it may almost certainly be expected. Its duration is of very uncertain continuance; sometimes only a few peals will be heard at any particular place during the whole season; at other times the storm will return at the interval of three or four days for five or six weeks, or longer; not that we have violent thunder in this country directly vertical in any one place so frequently in any year, but in many seasons it will be perceptible that thunder clouds are formed in the neighbourhood even at these short intervals. Hence it appears that during this particular period there must be some natural cause operating for the production of this phenomenon, which does not take place at other times. This cannot be the mere heat of the weather; for we have often a long tract of hot weather without any thunder; and besides, though not common, thunder is sometimes heard in winter. As therefore the heat of the weather is common to the whole summer, whether there be thunder or not, we must look for the causes of it in those phenomena which are peculiar to July, August, and September. Now it is generally observed, in the above-mentioned tract of country, that from April an east or south-east wind generally takes place, and continues with little interruption till towards the end of June. At that time, sometimes sooner and sometimes later, a west wind takes place; but, as the causes producing the east wind are not removed, the latter opposes the west wind with its whole force. At the place of meeting there is naturally a most vehement pressure of the atmosphere, and friction of its parts against one another; a calm ensues, and the vapors brought by both winds begin to collect and form dark clouds, which can have little motion either way, because they are pressed almost equally on all sides. For the most part, however, the west wind prevails, and what little motion the clouds have is towards the east, whence the common remark in this country, that 'thunder clouds move against the wind'. But this is by no means universally true; for if the west wind happens to be excited by any temporary cause before its natural period when it should take place, the east wind will often get the better of it; and the clouds, even although thunder is produced, will move westward. Yet in either case the motion is so slow, that the most superficial observers cannot help taking notice of a considerable resistance in the atmosphere. That when two streams of air are thus driven against each other, the space where they meet must become highly electrified, is as plain as that an electric globe must be excited when friction is applied. It is true, as the substances here to be excited are both electrics per se, it may be objected that no electricity could be produced; for we cannot excite one electric by rubbing it with another. Yet it is observed that glass may be electrified by blowing strongly upon it, or by the explosion of cannon; and even when glass is strongly pressed upon glass, both pieces become elec-

trified as soon as they are separated. When glass is rubbed upon glass, no attraction nor repulsion can be perceived, nor is any sign of electricity observed on bodies brought near to it, yet a very bright electric light always appears on the glasses, and a phosphoreal smell is felt; which shows that though the electricity does not fly out through the air, in the usual way, yet the fluid within the glass is agitated; and there is little reason to doubt, that any conducting body enclosed within the substance of the glass would be electrified also. The vapors therefore, which are the conducting substances in the atmosphere, become immediately electrified in consequence of the pressure above-mentioned, and all the phenomena described under the various articles already referred to take place. In like manner, by the struggle of two other winds as well as those of the east and west, may a thunder storm be produced; but it is always necessary that the resistance of the air to the motion of the clouds should be very great, and nearly equal all round. For if the vapor should get off to a side, no thunder would take place; the electricity would then be carried off as fast as it was collected, and rain only would be the consequence, by reason of the electrified vapors parting with their latent heat. In fact, we very often observe, that in the time of rain the clouds evidently move across the wind, and the nearer their motion is to a direct opposition, the heavier will the rain be; while, on the other hand, if they move briskly before the wind, let the direction be what it will, the atmosphere soon clears up.

That rattling in the noise of thunder, which makes it seem as if it passed through arches, or were variously broken, is probably owing to the sound being excited among clouds hanging over one another, and the agitated air passing irregularly between them. The explosion, if high in the air and remote from us, will do no mischief; but when near, it may destroy trees, animals, &c. This proximity or small distance may be estimated nearly by the interval of time between seeing the flash of lightning and hearing the report of the thunder, estimating the distance after the rate of 1142 feet per second, or three seconds and two-thirds to the mile. Dr. Wallis observes that commonly the difference between the two is about seven seconds, which, at the rate above-mentioned, gives the distance almost two miles. But sometimes it comes in a second or two, which argues the explosion very near us, or even among us. And in such cases, the Doctor assures us, he has sometimes foretold the mischiefs that happened.

The following general observations are made out from a comparison of a vast variety of more particular ones made in different places: 1. The air is almost always electrical, especially in the day time and dry weather; and the electricity is generally positive. It does not become negative unless by winds from places where it rains, snows, or is foggy. 2. The moisture of the air is the constant conductor of its electricity in clear weather. 3. When dark or wet weather clears up the electricity is always negative. If it has been very moist, and dries very fast, the electricity is very intense, and diminishes when

the air attains its greatest dryness; and may continue long stationary by a supply of air in a drying state from distant places. 4. If, while the sky overcasts in the zenith, only a high cloud is formed, without any secondary clouds under it, and if this cloud is not the extension of another which rains in some remote place, the electricity (if any) is always positive. 5. If the clouds, while gathering, are shaped like locks of wool, and are in a state of motion among each other; or if the general cloud is forming far aloft, and stretches down like descending smoke, frequently a positive electricity prevails, more intense as the changes in the atmosphere are quicker; and its intensity predicts the great quantity of snow or rain which is to follow. 6. When an extensive, thin, level, cloud forms and darkens the sky, we have strong positive electricity. 7. Low thick fogs, rising into dry air, carry up so much electricity as to produce sparks at the apparatus. If the fog continues round the apparatus without rising, the electricity fails. 8. When, in clear weather, a cloud passes over the apparatus, low and tardy in its progress, and far from any other, the positive electricity gradually diminishes and returns when the cloud has gone over. 9. When many white clouds gather over head, continually uniting with and parting from each other, and thus form a body of great extent, the positive electricity increases. 10. In the morning, when the hygrometer indicates dryness equal to that of the preceding day, positive electricity obtains even before sunrise. 11. As the sun gets up, this electricity increases; more remarkably if the dryness increases. It diminishes in the evening. 12. The mid-day electricity, of days equally dry, is proportioned to the heat. 13. Winds always lessen the electricity of a clear day, especially if damp; therefore they do not electrify the air by friction on solid bodies. 14. In cold seasons, with a clear sky and little wind, a considerable electricity arises after sunset, at dew falling. The same happens in temperate and warm weather. If, in the same circumstances, the general dryness of the air is less, the electricity is also less. 15. The electricity of dew, like that of rain, depends on its quantity. This electricity of dew may be imitated by electrifying the air of a close room (not too dry) and filling a bottle with very cold water, and setting it in the upper part of the room. As the damp condenses on its sides, an electrometer will show very vivid electricity. Such a collection of observations, to be fit for inference, requires very nice discrimination. It is frequently difficult to discover electricity in damp air, though it is then generally strongest; because the insulation of the apparatus is hurt by the dampness. To make the observation with accuracy requires a portable apparatus, whose insulation can be made good at all times. With such apparatus we shall never miss observing electricity in fogs or during snow. There is a very curious phenomenon which may be frequently observed in Edinburgh and other towns similarly situated. In a clear day of May an easterly wind frequently brings a fog with it, which advances from the sea in a dense body; and when it comes up the High Street it chills

the body exceedingly, while it does not greatly affect the thermometer. Immediately before its gaining the street, one feels like a tickling on the face as if a cobweb had fallen on it, and naturally puts up his hand and rubs his face. We have never found this to fail, and have often been amused with seeing every person rubbing his face in his turn. The same thing was observed at St. Petersburg in a summer's evening when a low fog came on about ten o'clock.

For the most part before thunder the wind is gentle or it is calm. A low dense cloud begins in a part previously clear: this increases fast in size; but this is only upwards, and in an arched form, like great bags of cotton. The lower surface of the cloud is commonly level, as if it rested on a glass plane. Soon after appear numberless small ragged clouds, like flakes of cotton teased out. These are moving about in various uncertain directions, and continually changing their ragged shape. This change, however, is generally by augmentation. Whatever occasions the precipitation of the dissolved water seems to gain ground. As these clouds move about, they approach each other and then stretch out their ragged arms towards each other. This is not by an augmentation but by a real bending of these tatters towards the other cloud. They seldom come into contact; but, after coming very near in some parts, they as plainly recede, either in whole or by bending their arms away from each other. But, during this confused motion, the whole mass of small clouds approaches the great one above it; and when near it, the clouds of the lower mass frequently coalesce with each other before they finally coalesce with the upper cloud; but as frequently the upper cloud increases without them. Its lower surface, from being level and smooth, now becomes ragged, and its tatters stretch down towards the others, and long arms are extended towards the ground. The heavens now darken apace, the whole mass sinks down; wind arises, and frequently shifts in squalls; small clouds are now moving swiftly in various directions; lightning now darts from cloud to cloud. A spark is sometimes seen co-existent through a vast horizontal extent, of a crooked shape, and of different brilliancy in its different parts. Lightning strikes between the clouds and the earth—frequently in two places at once. A continuation of these shapes rarefies the cloud, and in time it dissipates. This is accompanied by heavy rain or hail, and then the upper part of the clouds is high and thin. During this progress of the storm the thunder rod is strongly electrified, chiefly when the principal cloud is over head. The state of the electricity frequently changes from positive to negative—almost every flash, however distant, occasions a sudden start of the electroscope, and then a change of the electricity. When the cloud is more uniform, the electricity is so too. The question now is, in what manner does the air acquire this electricity? How come its different parts to be in different states, and to retain this difference for a length of time? and how is the electric equilibrium restored? But upon these subjects we need add nothing to what is already said under ELECTRICITY. The electric equilibrium is in-



deed restored with surprising rapidity and to a great extent. Yet we know that air is a very imperfect conductor, and transmits electricity to small distances only, and very slowly. But air is rendered electrical in a great variety of ways. All operations which excite electricity in other bodies have the same effect on air. It is electrified by friction. When blown on any body, such as glass, &c., that body exhibits electricity by a sensible electroscope. We therefore conclude that the air has acquired the opposite electricity from this rubber. A glass vessel, exhausted of air and broken in the dark, gives a loud crack and a very sensible flash of light. An air gun, discharged (without a ball) in the dark, does the same. Blowing on an electric with a pair of bellows never fails to excite it. In short the facts to this purpose are numberless. Most of these and other phenomena are taken notice of under ELECTRICITY. These facts are also to be found among many experiments of M. Saussure. We see some of the effects very distinctly in several phenomena of thunder and lightning. Thus the great eruptions of *Ætna* and *Vesuvius* are always accompanied by forked lightnings, which are seen darting among the volumes of emitted smoke and steam. Here is a very copious conversion of water into elastic steam; and here also it is most reasonable to expect a copious decomposition of water by the iron and coaly matters, which are exposed to the joint action of fire and water. These two electricities will be opposite; or when not opposite will not be equal; in either of which cases we have vast masses of steam in states fit for flashing into each other. The simple solution of water in air produces electricity. And this is the chief operation in nature connected with the state of the atmosphere. It is thus that the watery vapors from all bodies, and particularly the copious exudation of plants, disappear in our atmosphere. There can be no doubt but that the opposite electricity will be produced by the precipitation of this vapor; that is, by the formation of clouds in clear air. Lastly, we know that the *tourmalin*, and many of the columnar crystals, are rendered electrical by merely heating and cooling. When water is precipitated, and forms a cloud, it is reasonable to expect that it will have the electricity of the air from which it is precipitated. This may be various, but is in general negative; for the heat by which the air was enabled to dissolve the water made it negative. But if it be cooled so fast as to precipitate it in the form of rain, or snow, or hail, we may expect positive electricity. Accordingly, in summer, hail showers always show strong positive electricity; so does snow when falling dry. Here, then, are copious sources of atmospheric electricity. The masses of air thus differently constituted are evidently disposed in strata. The clouds are seen to be so. When the wind, or stratum in motion, does not push all the quiescent air before it, it generally gets over it, and then flows along its upper side, and, by a partial mixing, produces a fleecy cloud. This is the state of the atmosphere, consisting of strata of clear air many hundred yards thick, separated from each other by thin fleeces of clouds. This is no fancy; for we ac-

tually see the sky separated by strata of clouds at a great distance from each other. And we see that these strata maintain their situations, without farther admixture, for a long time, the bounding clouds continuing all the while to move in different directions. In 1783, when a great fleet rendezvoused in *Leith Roads*, the ships were detained by an easterly wind which had blown for six weeks without intermission. The sky was generally clear; sometimes there was a thin fleece of clouds at a great height, moving much more slowly in the same direction with the wind below. During the last eight days the upper current was from the westward, as appeared by the motion of the upper clouds. High towering clouds came down the river with a little rain; the strata were jumbled, and the whole atmosphere grew hazy and uniform; then came thunder and heavy rain, and the wind below shifted to the west. Thus it is sufficiently evinced that the atmosphere frequently consists of such strata well distinguished from each other; their appearance and progress leave us no room to doubt but that they come from different quarters, and had been taken up or formed at different places, and in different circumstances, and therefore differing in respect of their electrical states. The consequence of their continuing long together would be a gradual but slow progress of their electricity to a state of equilibrium. The air is perhaps never in a perfectly dry state, and its moisture will cause the electricity to diffuse itself gradually. But thunder requires a rapid communication, and a restoration of electric equilibrium in an instant and to a vast extent. The means for this are at hand. The strata of charged air are furnished with a coating of cloud. The lower stratum is coated on the under side by the earth. When a jumble is made in any of the strata, a precipitation of vapor must generally follow. Thus a conductor is brought between the electrical coatings. This will quickly enlarge. In this manner the interposed cloud immediately attracts other clouds, grows ragged by the passage of electricity through clear air, where it causes a precipitation by altering the natural equilibrium of its electricity. Accordingly we see in a thunder storm that small clouds continually and suddenly form in parts formerly clear. Whatever causes thunder, does in fact promote this precipitation. These clouds have the electricity of the surrounding air, and must communicate it to others in an opposite state and within reach. They must approach them, and must afterwards recede from them, or from any that are in the same state of electricity with themselves. Hence their ragged forms, and the similar form of the under surface of the great cloud; hence their continual and capricious shifting from place to place; they are carriers which give and take between the other clouds, and they may become stepping stones for the general discharge. If a small cloud form a communication with the ground, and the great cloud be positive or negative, we must have a complete discharge, and all the electrical phenomena, with great violence; for this coating of vapor is abundantly complete for the purpose. The general scene of thunder is the heavens; and it

is by no means a frequent case that a discharge is made into the earth. The air intervening between the earth and the lowest coating is commonly very much confused in consequence of the hills and dales, which, by altering the currents of the winds, toss up the inferior parts and mix them with those above. This generally keeps the earth pretty much in the same electrical state as the lowest stratum of clouds. There are, however, many melancholy instances of the violent effects of thunder storms on the earth.

**THUNDERBOLT.** When lightning acts with extraordinary violence, and breaks or shatters any thing, it is called a thunderbolt, which the vulgar, to fit it for such effects, suppose to be a hard body, and even a stone. When we consider the known effects of electrical explosions, and those produced by lightning, we shall be at no loss to account for the extraordinary operations vulgarly ascribed to thunderbolts. As stones and bricks, struck by lightning, are often found in a vitrified state, we may reasonably suppose, with Beccaria, that some stones in the earth having been struck in this manner gave occasion to the vulgar opinion of the thunderbolt.

**THUNDERSTORM,** a storm of lightning and thunder, generally attended with hail, rain, and wind.

**THURGOVIA,** or **THURGAU,** a canton in the north-east of Switzerland, adjoining the lake of Constance and the course of the Thur. Its extent is 350 square miles. The surface is in part level, and the hills, where they occur, do not exceed a height of 2500 feet above the lake. The products are wheat, barley, oats, rye, flax, hemp, and vines, and the pastures are extensive. Apple trees abound; occupying in various places orchards, and in one quarter an extensive forest. Cotton and silk are both manufactured; but the staple article is linen, which was introduced so far back as the thirteenth century. The canton is divided into eight bailiwicks. Population 77,000, of whom one-fourth only are Catholics, the others Calvinists.

**THURIA,** an ancient town of the Morea, in Messenia, towards the eastern frontier, the ruins of which are still extensive, covering a hill at the foot of the ridge of Taygetus.

**THURIÆ, THURII, or THURIUM,** an ancient town of Italy, in Lucania, built by a colony of Athenians near the ruins of Sybaris, A. A. C. 444. Among these colonists were Herodotus the historian and Lysias. Strab. vi. Mela ii. 4.

**THURIE,** a town of Messenia.—*Pat.*

**THURIFICATION, n. s.** Lat. *thuris* and *facio*. The act of fuming with incense; the act of burning incense.

The several acts of worship which were required to be performed to images are processions, genuflections, *thurifications*, deosculations, and oblations.

*Stillingleet.*

**THURINGI,** the ancient inhabitants of Thuringia. They were a tribe of the Catti, or, according to others, of the Vandals. They are mentioned by Tacitus, and were very numerous.

**THURINGIA,** in ancient geography, the country of the ancient Thuringi, was formerly a kingdom, afterwards a county, then a landgraviate, and was governed by its own princes for

many ages till 1124, when it devolved to the marquis of Misnia, and, with that country, afterwards to the duke of Saxony.

**THURINGIA FOREST,** a hilly and woody tract of country in the interior of Germany, extending through a number of petty principalities, Eisenach, Gotha, Weimar, Coburg, &c. It is a part of the ancient Hercynian forest, has a length of about seventy miles, and varies in breadth from nine to sixteen, covering an area of about 1000 square miles. It is thinly peopled, containing only hamlets or small villages. It is, however, rich in metals, particularly iron. Its highest peaks vary in height from 2000 to 2800 feet. It is covered with wood in every direction, and gives rise to a number of streams which flow into the adjacent plain, and finally into the Maine, the Weser, and the Elbe.

**THURLOE (John),** an English statesman under Oliver Cromwell, was born at Abbot's Roding in Essex in 1616, of which parish his father was rector, and was educated to the study of the law. In 1648 he was made receiver of the cursitory fines. When Oliver Cromwell assumed the protectorship he became secretary of state; in 1655 he had the care and charge both of foreign and inland postage; and was afterwards sworn a member of the privy-council. He was continued in the same offices under Richard Cromwell, and until measures were taken for the restoration, when he made an offer of his services to that end, which, however, was not accepted. May 15th, 1660, he was committed to the custody of the serjeant at arms on a charge of high treason; but being soon released he retired to Great Milton in Oxfordshire; and, though he was afterwards often solicited by Charles II. to engage in the administration of public business, he declined the offers. He died in 1668; and was a man of an amiable private character, who in the highest of his power exercised all possible moderation towards persons of every party. The most authentic testimony of his abilities is his vast collection of state papers, in 7 vols. folio.

**THURLOW (Edward),** lord high chancellor of Great Britain, was born in 1758, at Ashfield, Norfolk, and, after passing some time at Cambridge, came to London to study the law. He was called to the bar in 1758, and raised himself to notice by his manly opposition to Sir Fletcher Norton. In the Douglas cause he displayed such ability that the public attention was turned towards him as formed to reach the highest stations in his profession. In 1770 he was appointed solicitor general, and the next year attorney general. In June 1778 he was created a peer, and the day following nominated lord high chancellor. This office he resigned in 1783, but, on the re-admission of Mr. Pitt into the cabinet, he again was promoted to the seals, and kept them till 1793. After that time he lived in retirement, and died, after an illness of two days, at Brighthelmstone, 12th September, 1806. His character as a lawyer is fixed on the firm basis of his extensive knowledge, quick penetration, correct judgment, and undeviating integrity. Though overbearing in his manners, he was zealously attached to his party, inflexible in his opinions, and loyal in his conduct.



**THURROCK-GRAYS**, a market-town in Clifford hundred, Essex, near the Thames, at the bottom of St. Clement's Reach, twenty-one miles east of London. It consists chiefly of one irregular street, in which is the market-house, over which is the room where the petty sessions are held; the church is an ancient building, in the form of a cross. Market on Thursday, well supplied with corn, which is sold by samples. Fair 23d of May.

**THUS**, *adv.* Sax. *þur*. In this manner; in this wise; to this degree or quantity.

I have sinned against the Lord, and *thus* and *thus* have I done. *Joshua vii. 23.*

It cannot be that they who speak *thus* should *thus* judge. *Hooker.*

The knight him calling, asked who he was? Who lifting up his head him answered *thus*. *Spenser.*

To be *thus* is nothing;

But to be safely *thus*. *Shakspeare. Macbeth.*

A counsellor of state in Spain said to his master, I will tell your majesty *thus* much for your comfort, your majesty hath but two enemies; whereof the one is all the world, and the other your own ministers. *Bacon.*

The Romans used a like wise endeavour, and whiles in a higher, in a wiser strain, making concord a deity; *thus* seeking peace, not by an oath, but by prayer. *Holyday.*

That the principle that sets on work these organs is nothing else but the modification of matter, *thus* or *thus* posited, is false. *Judge Hale.*

He said, *Thus* far extend, *thus* far thy bounds. *Milton.*

No man reasonably pretends to know *thus* much, but he must pretend to know all things. *Tillotson.*

Beware, I warn thee yet, to tell thy griefs

In terms becoming majesty to hear;

I warn thee *thus*, because I know thy temper

Is insolent. *Dryden's Don Sebastian.*

*Thus* much concerning the first earth, and its production and form. *Burnet's Theory.*

This you must do to inherit life; and if you have come up *thus* far, firmly persevere in it. *Wake.*

**THUS**, frankincense, a solid brittle resin, brought to us in little globes or masses, of a brownish or yellowish color on the outside, internally whitish or variegated with whitish specks. It is supposed to be the produce of the pine that yields the common turpentine, and to concrete upon the surface of the terebinthinate juice soon after it has issued from the tree. See **INCENSE**.

**THUSCIA**, an ancient name of Etruria, whence Tuscany, one of its modern names, is derived.

**THWACK**, *v. a. & n. s.* Sax. *þaccian*. To strike with something blunt and heavy; to thresh; to bang; to belabor: a heavy hard blow. A ludicrous word.

He shall not stay;

We'll *thwack* him hence with distaffs. *Shakspeare.*

But Talgol first with a hard *thwack*

Twice bruised his head, and twice his back. *Hudibras.*

They place several pots of rice, with cudgels in the neighbourhood of each pot; the monkeys descend from the trees, take up the arms, and belabour one another with a storm of *thwacks*. *Addison's Freeholder.*

Nick fell foul upon John Bull, to snatch the cudgel he had in his hand, that he might *thwack* Lewis with it. *Arbuthnot.*

These long fellows, as slightly as they are, should find their jackets well *thwacked*. *Id.*

**THWART**, *adj., v. a., & v. n.* Sax. *þryrn*; Belg. *dwaars*. Transverse; cross to something else: the verbs corresponding.

Some sixteen months and longer might have staid, If crooked fortune had not *thwarted* me. *Shakspeare.*

Lesser had been

The *thwarters* of your dispositions, if You had not showed how you were disposed Ere they lack power to cross you. *Id. Coriolanus.*

This else to several spheres thou must ascribe, Moved contrary with *thwart* obliquities. *Milton.*

Swift as a shooting star

In autumn *thwarts* the night. *Id. Paradise Lost.*

The rays both good and bad, of equal power, Each *thwarting* other made a mingled hour. *Dryden.*

It is easy to be imagined what reception any proposition shall find, that shall at all *thwart* with these internal oracles. *Locke.*

The understanding and will then never disagreed; for the proposals of the one never *thwarted* the inclinations of the other. *South.*

In vain did I the godlike youth deplore:

The more I begged, they *thwarted* me the more. *Addison.*

Neptune atoned, his wrath shall now refrain, Or *thwart* the synod of the gods in vain. *Pope's Odyssey.*

Yon stream of light, a thousand ways Upward and downward *thwarting* and convolved. *Thomson.*

By *thwarting* passions tost, by cares oppress, He found the tempest pictured in his breast. *Young.*

**THY**, *pron.* } Sax. *þin*. Of thee; belong-  
**THYSELF**. } ing to thee; relating to thee; the possessive of **THOU**, which see. **Thyself** is the reciprocal pronoun.

Come high or low,  
**Thyself** and office deftly show.

*Shakspeare. Macbeth.*  
It must and shall be so; content *thyself*. *Shakspeare.*

Whatever God did say,  
Is all *thy* clear and smooth uninterrupted way. *Cowley.*

These are *thy* works, parent of good!  
These goods *thyself* can on *thyself* bestow. *Milton.*

*Dryden.*

**THYA**, a town of Phocis near Delphi.

**THYA**, a name of Cybele. See **OPS**.

**THYADES**, a name of the Bacchanals.

**THYAMIS**, a river of Epirus. Paus. i. c. 11.

**THYATIRA**, an ancient city of Asia Minor in Lydia; originally called Pelopia, formerly very flourishing (Liv. 37, c. 8. and 44), and famous in the apostolic age for its early reception of Christianity. Rev. ii. 18, 19.

**THYBARNI**, an ancient nation of Asia, near Sardis. Diod. 17.

**THYESTES**, the son of Pelops and brother of Atreus, whose wife he debauched; which was followed by a series of horrid crimes. See **ÆGISTHUS**, **ATREUS**, **CLYTEMNESTRA**, **PELOPEIA**, &c.

**THYMBRA**, an ancient town of Lydia near Sardis, famous for a battle fought between Cyrus king of Persia and Cræsus king of Lydia, in which the latter was defeated. See **CRÆSUS** and **CYRUS**.

**THYMBRA**, in botany, mountain hyssop, a genus of plants of the class didynamia and order gymnospermia; and in the natural method ranking in the order of verticillatæ.

**THYMBRA**, a district of Troas where there was a temple of Apollo; whence

**THYMBRÆUS**, a surname of Apollo.

**THYMBRIS**, a nymph, the mother of Pan.

**THYMBRIUS**, a river of Troas running into the Scamander through Thymbra.

**THYME**, *n. s.* Fr. *thym*; Lat. *thymus*. A plant. See **THYMUS**

No more, my goats, shall I behold you climb  
The steepy cliffs, or crop the flowery *thyme*.

*Dryden.*

**THYMIATHIS**, a river of Epirus. Strab. 7. **THYMOCHARES**, an Athenian general who was defeated by the Spartans.

**THYMETES**, a Trojan prince, the son of Laomedon king of Troy, whose wife and son having been killed by order of king Priam, he, in revenge, advised the Trojans to admit the wooden horse of the Greeks, by which Troy was destroyed. Virg. *Æn.* ii. 32.

**THYMETES**, another Trojan prince, son of Hicetaon and grandson of Laomedon, who accompanied Æneas into Italy, where he was killed by Turnus. *Æn.* x. 123.

**THYMETES**, king of Attica, the son of Oxyntus, the last king of the family of Theseus. He was deposed because he refused to fight Xanthus king of Bœotia about A. A. C. 1128.

**THYMUS**, in anatomy. See **ANATOMY**, Index.

**THYMUS**, thyme, in botany; a genus of plants belonging to the class of didynamia and order of gymnospermia; and in the natural system ranging under the forty-second order verticillatæ. The calyx is bilabiate, and its throat closed with soft hairs. There are eleven species, of which two only are natives of Britain; viz. 1. *T. acinus*, wild basil, has flowers growing in whirls on single footstalks; the stalks are erect and branched; the leaves acute and serrated. 2. *T. serpyllum*, or mother of thyme, has pale red flowers growing on round heads, terminal; the stalks are procumbent, and the leaves plane, obtuse, and ciliated at the base. 3. *T. vulgaris*, common garden thyme, is a native of France, Spain, and Italy.

**THYNI**, or Bihyni, an ancient people of Bithynia.

**THYODAMAS**, or **THEODAMAS**, a king of Mysia killed by Hercules.

**THYRE**, a town of Messenia famous for a battle fought between the Argives and Spartans.

**THYREA**, an island on the coast of Peloponnesus near Hermione.—Herod. vi. 76.

**THYRSAGETÆ**, an ancient nation of Sarmatia, who lived chiefly by hunting.—Plin. iv., c. 12.

**THYRSUS**, in antiquity, the sceptre of Bacchus, and wherewith they furnished the menades in their Bacchanalia. The Thyrsi were spears made wholly of wood, entwined with leaves and twigs of the vine and ivy.

**THYRSUS**, in botany, a mode of flowering resembling the cone of a pine. It is, says Linneus, a panicle contracted into an oval or egg-shaped form. The lower foot stalks, which are longer,

extend horizontally, whilst the upper ones are shorter and mount vertically. Lilac and butterbur furnish examples.

**THYRSUS**, in geography, a river of Sardinia, now called Oristagni.

**THYSIUS** (Anthony), a celebrated philologist, born at Harderwick, in Holland, in 1603. He became professor of poetry and rhetoric, and librarian to the university of Leyden. He published 1. *Compendium Historiæ Bataviæ*; 2. *Exercitationes Miscellanæ*; and several accurate editions of the classics cum notis variorum.

**THYSSOS**, an ancient town of Macedon, near mount Athos.

**THYUS**, a satrap of Paphlagonia, who revolted from Artaxerxes II., and was seized by Datames.

—Corn. Nep. in Dat.

**TIAR**, *n. s.* } Fr. *tiare*; Lat. *tiara*. A  
**TIARA**. } dress for the head; a diadem.

His back was turned, but not his brightness hid;  
Of beaming sunny rays a golden *tiar*

Circled his head. *Milton's Paradise Lost.*

This royal robe and this *tiara* wore  
Old Priam, and this golden sceptre bore  
In full assemblies. *Dryden's Æneid*

Fairer she seemed, distinguished from the rest,

And better mien disclosed, as better drest;

A bright *tiara* round her forehead tied,

To juster bounds confined its rising pride. *Prior*

A *tiar* wreathed her head with many a fold,  
Her waist was circled with a zone of gold. *Pope.*

**TIARA** is the name of the pope's triple crown. The tiara and keys are the badges of the papal dignity; the tiara of his civil rank, and the keys of his jurisdiction; for as soon as the pope is dead his arms are represented with the tiara alone, without the keys. The ancient tiara was a round high cap. John XXIII. first encompassed it with a crown. Boniface VIII. added a second crown; and Benedict XII. a third.

**TIARELLA**, in botany, a genus of the digynia order and decandria class of plants; natural order thirteenth, succulentæ: CAL. quinquepartite; cor. pentapetalous, and inserted into the calyx; the petals are entire: CAPS. unilocular and bivalve, the one valve being less than the other. There are two species, viz., 1. *T. cordifolia*, with heart-shaped leaves; and 2. *T. trifolia*, the three-leaved tiarella.

**TIARINI** (Alexander), a celebrated painter, born at Bologna, in 1577: he painted historical pieces and portraits in a fine style. He died in 1668.

**TIASA**, a river of Laconia; so named from a nymph, the daughter of Eurotus.—Paus. iii. c. 18.

**TIBBOO**, a semi-barbarous people of Central Africa, whose country is on the south of Fezzan and north of Borneo. The people of Fezzan do not in general consider it safe to travel the desert along with them; and the Rock Tibbo, in particular, who inhabit a mountainous district, situated to the south-east of Fezzan, are rude and ferocious.

**TIBER**, a river of Italy, celebrated in the annals of the 'Eternal Empire,' rises from the Apennines near the eastern confines of Tuscany, and flows from north to south, till it passes Rome, and enters the sea below that city. As



it traverses the imperial city, a late traveller observes—'though choked and shallowed by the debris of its banks, and the crumbling edifices of successive centuries, broad, deep, and unruined by the ruins which it conceals, it is still the yellow muddy Tiber of the Augustan age, finely corresponding in tone and color with the dusky ruins that nod on its shores.' It receives the Chiano from the west, with the Nera and the Velino from the east and south-east.

**TIBERIADES**, in Roman mythology, the nymphs of the Tiber.

**TIBERIAS**, in ancient geography, the last town of Galilee, situated on the south side of the lake Tiberias; built by Herod the Tetrarch, named in honor of the emperor Tiberius; thirty stadia from Hippus. Jerome says its ancient name was Chinnereth. It is now called **TABARIA**, which see.

**TIBERIAS, LAKE, or SEA OF.** See **GENNESARETH**.

**TIBERINUS**, a king of Alba, who was drowned in the Albula; on which its name was changed to Tiber. See **ROME**.

**TIBERIUS I** (Claudius Nero), the third emperor of Rome, and one of the greatest monsters that ever reigned in it. He was the step-son, colleague, and successor of Augustus. See **ROME**.

**TIBERIUS II.** was a Thracian by birth, and rose by his merit to the highest offices in the state; and at last Justin II. associated him as his colleague in the eastern empire, A. D. 574. On the death of Justin, in 578, he became sole emperor; and reigned with great justice and moderation. He defeated the Persians, and died in 582.

**TIBERIUS** (Claudius), was also the name of the emperors Claudius and Nero.

**TIBESIS**, a river of ancient Scythia, rising from mount Hemus, and falling into the Ister.—Herod. iv. 49.

**TIBET, TIBBET, or THIBET**, a part of Independent Tartary, extending from the source of the Indus to the borders of China, and from Hindostan to the deserts of Cobi. Its length, from east to west, is about 1500 miles; the breadth unequal, and in many parts unknown. The native name is Pue, or Puekachim; Pue signifying northern, and Koachim snow; an appellation given on account of the coldness of the climate.

The distinguishing feature of this country is its great and general elevation. It includes the great range of Himmaleh, or Himalaya mountains (the abode of snow), the height of whose lofty summits has never been correctly determined; but Mr. Colebrooke considers the evidence sufficient to warrant his asserting (1816) that the peaks of the Himmaleh chain greatly exceeded those of the Andes. The part west of the Indus is denominated Hindoo Coosh, but the most elevated points are east of that river. From the north-east of Cashmere the chain bends to the south, and is still more stupendous. It crosses the sources of nearly all the rivers that water the south and south-east parts of Asia; but, on the north-east of Hindostan, it becomes less continuous, and is traversed by several rivers, among which are the Gunduck,

the Teesta, the Burrampooter, and others. East of this it penetrates into an unexplored region, and is supposed to terminate on the shores of the Chinese Sea. While it forms the great bulwark of the table-land, its elevation is enormous, but it declines in altitude towards the east. On the northern side, the descent to the plains of Tibet is small in comparison with the altitude of the vast southern ramparts that overlook Gangetic Hindostan. See **HIMALAYA**.

Captain Turner crossed a part of this chain in 1783, when sent from the supreme government of India on an embassy to the Teshoo Lama. This officer traversed one of the passes above Bootan, and 700 or 800 miles east of the place where the chain is intersected by the Sutledge. His mission also required him to cross a great part of the Plateau of Southern Tartary, to which, in this eastern region, as well as in the more western parts, the descent is inconsiderable compared with that on the opposite side. All the passes are either in the beds, or on the banks of the rivers that wind through the ravines and chasms of the chain. These statements apply particularly to the southern side of the great range. Little is known respecting the interior, beyond its being a region of mountains and deserts, intersected by fertile valleys, and watered by the germs of those noble streams that ultimately roll their spacious floods into the southern and eastern ocean. The political division of the country is of course involved in equal mystery; and though the following provinces are known (the two former towards the east, and the latter in the south-west), they are separated by large intervening and unexplored regions. These territorial divisions are, 1. Lassa; 2. Teshoo Loomboo; 3. District of Undes; 4. Lahdack.

North of the great frontier chain another rises, scarcely of inferior height. The space between these is distinctly marked for about 200 miles by the course of the Sutledge, and, though varied by smaller ridges, is in general between thirty and forty miles in width. Behind the inner range the Tartaric plain inclines towards the north, as the rivers begin to flow in that direction. In the north-west part of the Calais mountains is an elevated summit covered with perpetual snow, and represented by Hindoo superstition as the principal throne of their divinity, Siva, who, they must think, delights in the perfection of cold, to have chosen such an abode.

Several lakes of Tibet are much venerated by the Hindoos, and are objects of frequent pilgrimages, particularly two near the source of the Sutledge. They think them holy, but a more rational observer is at a loss to account for this supposed sanctity, unless from the sterility of the soil, the severity of the climate, and the difficulty of access; for whatever smooths the way to an object of veneration, lessens its purity in the view of superstition. The most celebrated is the Manasarovara, which is principally surrounded by steep rocks. It is of an oblong shape, about fifteen miles long, and nearly twelve broad. The waters are clear and of a greenish hue; but, as the heat of the sun while near the meridian, and the cold constantly ena-

nating from the vast masses of snow that clothe the adjacent summits, maintain a perpetual conflict in this elevated region, they are almost continually agitated. When Mr. Moorcroft saw it in August, the mountain torrents by which it is fed were most of them dry, and the water was supposed to be at the lowest; but there was no appearance of its ever rising more than a few feet above that level, which would still be far within its banks, as they rose in many places to nearly 300 feet almost perpendicularly. On the ledges of these steep acclivities, several huts made of loose stones were placed. They were only accessible by ladders, and apparently inhabited by religious devotees. Numerous flocks of aquatic birds resort to this lake at certain seasons, when its surface is almost covered with them, and thousands are bred in its vicinity. The Manasarovara is not merely looked upon as sacred by the Hindoos, but by the Undes and Chinese Tartars, who consider it as a religious duty to carry the ashes of their relations and mingle them with its waters. Another of these sacred lakes is Rawan's Hrad, about ten or twelve miles west of Manasarovara; but it is thought to be less holy, and has consequently been less frequented. It is formed of two branches, the one stretching east, and the other south, enclosing a projecting part of the mountain between them. It is much larger than the Manasarovara, and its waters at a distance appear of an indigo blue. Great part of its shores is covered with long grass, and the river Sutledge issues from its western extremity.

Other lakes are found among the mountains of Tibet, and, though often much larger than those already described, are held less sacred. One of the most singular is Lake Palté, near the northern base of the Himmaleh chain. It is an extensive moat, about two leagues broad, surrounding an island nearly forty leagues in circumference. Lake Terkiri is situated beyond a chain of mountains that stretches from east to west in lat.  $31^{\circ}$  or  $32^{\circ}$ . It is the largest known lake in Tibet, and is about eighty English miles long, and from thirty to forty broad. Lake Pouca also extends through a space of forty or fifty miles at a short distance north-west of Terkiri, but is narrow in proportion.

In the temperature and return of the seasons a singular uniformity prevails. The spring is from March to May; but in this season, which is extremely dry on the south side of the Himmaleh mountains, thunder storms and showers occasionally occur in Tibet. From June to September more heavy and continued rain falls, while the rivers are swelled, and the mountain streams become torrents. From October to March the sky is seldom obscured by a cloud; and for three months the cold is extremely intense, particularly in the southern parts, where the temperature is most influenced by the snowy mountains, which rise, like a screen of perpetual congelation, between them and the heated atmosphere of the Gangetic plains. In the middle of September, 1783, the thermometer at Tuena fell below the freezing point. Near these mountains fish and meat are frozen in the autumn, and thus preserved through the winter.

The air is then extremely dry, and produces the same effect as the scorching winds of Hindostan. Every thing appears parched. Vegetation is dried even to brittleness, and crumbles into dust. This severity obliges the scanty population to seek refuge in the valleys, which, in favorable situations, and particularly near the banks of the rivers, are cultivated, and yield slight crops of barley, pease, and wheat; but the last is so scarce as seldom to be used by the lower classes. Many parts, however, afford pasturage for numerous flocks and herds. In most other places the country is a mere desert, composed of naked hills of clay, strewed with the shivered fragments of rocks split by the intensity of the frost, or covered with deep beds of fine sand, from which every particle of moisture is exhausted by the dryness of the atmosphere.

Contrasted with Bootan, and other districts on the south of the great chain, the number of *quadrupeds* here is astonishing. Flocks, droves, and herds, are numerous. Beasts of prey, game, and wild fowls, are every where met with. Among the most remarkable of the domestic animals is the grunting ox, or yak, of Tartary, frequently called the bushy-tailed bull. It is covered with a thick coat of long woolly hair, which gives it a bulky appearance, though it is not larger than many of the English cattle. The ox is noted for its tail of fine bushy hair, so much valued in Hindostan, where they are universally used as chowries for driving away flies, as well as for ornamental purposes. They are fed on the short herbage that grows on the mountains and the bleak plains; but are never employed in agriculture, though sometimes used as beasts of burden. Tents are also covered with felt made of their hair. The other cattle are of the same kind as those of Hindostan. The musk-deer is also a peculiar animal belonging to this elevated region, and appears to delight in its intense cold. It is about as large as a middle-sized hog, which it resembles in shape; and is covered with a thick coat of hair. The musk is secreted in a small pouch under its belly, and is only found in the male. Nature has supplied most of the animals of southern Tartary with an abundant covering to shield them from the severity and changes of the atmosphere incident to those high regions. The sheep has a heavy fleece of fine wool, and the common goat a covering of downy fur under its long shaggy hair. The cow is also clothed in the same manner; and the shawl-goat is of a peculiar species, frequently of a light fawn color. It is about the size of a small sheep; and the substance of which the shawls are made is the soft downy covering next the skin, the delicacy of which is preserved by an outer coat of shaggy hair. Numerous flocks of sheep are bred in Tibet, and their flesh forms a great part of the animal food of its inhabitants. They are also used as beasts of burden, and whole flocks are sometimes seen in motion, loaded with grain or salt, each carrying from twelve to twenty pounds. The skins of the lambs are highly valued in many parts for lining vests and making turbans. The hare of Tibet is also distinguished for the quantity and fineness of its fur; and the bharal which par-



takes of the nature both of the deer and the sheep, has a coating of fine fur under its outward covering of brittle hair, common to the deer species. The horses are larger than those of Bootan; but the mule is much used in the commerce of the country. Both these animals, together with asses, are found wild. The dog resembles the Nepaul mastiff, and is stout and ferocious. Other wild animals also abound in the unfrequented parts of the country.

Major Latter commanding in the Sikkim territories, on the borders of the great Himmaleh range, lately procured a curious Tibetan manuscript, containing the names of different animals; and, in the class of those whose hoofs are divided, there was an animal called the one-horned *ts'o'po*. 'Upon enquiring what kind of an animal it was,' says major L., 'to our astonishment, the person who brought me the manuscript, described exactly the unicorn of the ancients; saying that it was a native of the interior of Tibet, about the size of a tatoo (a horse from twelve to thirteen hands high), fierce, and extremely wild, seldom if ever caught alive, but frequently shot; and that the flesh was used for food. The person who gave me the information has repeatedly seen these animals, and eaten the flesh of them. They go together in large herds, like our wild buffaloes, and are very frequently to be met with on the borders of the great desert, about a month's journey from Lassa, in that part of the country inhabited by the wandering Tartars.'—Fraser's Tour.

Gold is found in several places; but is only worked on a small scale for the Chinese government, or by such persons as enter into a contract with it for that privilege. These contracts are limited to the number of workmen that will annually produce the government about 400lbs. of the refined metal. Silver and iron seem not to be procured, and the scarcity of fuel is an insurmountable obstacle to mining of all kinds. Cinnabar, containing a large quantity of quicksilver, is found, and might be worked with great advantage if fuel were attainable. Nitre is spontaneously produced in great abundance in many parts, and marbles, with other valuable fossils, are hidden in the bosoms of the mountains. Tincal is likewise one of the peculiar minerals of this upper region of the globe; and Mr. Saunders, who accompanied captain Turner on his embassy, observes, 'The lake whence tincal and rock-salt are collected is about fifteen days' journey from Theshoo-Loomboo, and to the northward of it. It is encompassed on all sides by rocky hills, without any brooks or rivulets near at hand; but its waters are supplied by springs, which, being saltish to the taste, are not used by the natives. The tincal is deposited or formed in the bed of the lake, and those who go to collect it, dig it up in large masses, which they afterwards break into small pieces for the convenience of carriage, and expose it to the air to dry. Although tincal has been collected from this lake for a great length of time, the quantity is not perceptibly diminished, and as the cavities made by digging it soon wear out, or fill up, it is an opinion with the people that the formation of fresh tincal is going on. They never have yet met

with it in dry ground, or high situations, but it is found in the shallowest depths, and on the borders of the lakes; which, deepening gradually from the edges towards the centre, contain too much water to admit of searching for the tincal conveniently; but from the deepest parts they bring rock-salt, which is not to be found in shallows or near the bank.'

The modern capital of Tibet is Lassa: the residence of the Dalai Lama. It is about forty-five days' journey from Pekin, and 220 English miles from the north-east borders of Bengal. He is supposed to be an incarnation of the deity. Here also resides the Chinese tazin, or viceroy, whose authority extends about 650 miles further to the west.

Teshoo Loomboo, the residence of the Teshoo Lama, is situated south-east of Lassa, and about 180 miles from the northern extremity of Bengal. This place is properly a large monastery, comprising 300 or 400 houses, inhabited by Gy-longs, or monks, besides the palace of the sovereign pontiff, with numerous temples and mausolea. The buildings are of stone, and two or three stories high, with flat roofs and parapet walls. When Teshoo Loomboo was visited by captain Turner, the establishment of the monastery included 3700 monks, who were engaged in the daily services of the Goomba, or temple. Their stated times of devotion are sun-rise, noon, and sun-set; and their religious ceremonies are superintended by four lamas or high-priests, chosen from among their own body. From Teshoo Loomboo roads diverge to Bootan, Bengal, Cashmere, China, and other quarters. Most of the other places in Tibet are either forts or villages.

Much of the trade of Tibet is carried on with China. Caravans, consisting of 500 or 600 men, travel between the two countries. They transport their goods chiefly on cattle and mules, but a few horses are sometimes employed. The Chinese merchants carry tea, various kinds of wrought silks, a little European broad-cloth, silver, China-ware, pearls, and coral, besides European cutlery, and a few other articles. From Lassa they return with the coarse cloth made in the country (its sole manufacture), gold, and various other commodities imported from Bengal. A commercial intercourse is also maintained with Assam. The merchants meet on the confines of the two countries, and chiefly exchange silver and salt, on the one part, for rice, silks, cloth, and iron, on the other. The principal exports from Tibet to Hindostan, by way of Nepaul, are musk, cow-tails, and sable-skins, which are the produce of the country, with tea and other things previously received from China. Gold is also sent from Tibet, but, as there is always much secrecy observed in dealing in that metal in the east, the amount cannot be ascertained. Tincal is likewise exported to Hindostan. In addition to the produce and manufactures of India, several European goods, with otter-skins, pearls, coral, and some other things, are sent across the mountains. A commercial intercourse is likewise maintained between Tibet and Cashmere; whence the Tibetans receive shawls, saffron, and dried fruits, in exchange for silver, tea, and shawl wool.

Tibet has been subject to the Chinese, for more than 100 years, and the orders of the emperor are therefore enforced by the raja, naib or deputy, an officer who administers the temporal affairs. He is, like the supreme pontiff, a mysterious being, and subject to similar transmutations, and his identity is ascertained in the same manner. He is justly considered the civil ruler of the state, under the restrictions arising from the Chinese Tazin, on the one hand, and the permanent laws and customs of the realm on the other. In the discharge of these duties the rajah is assisted by a council consisting of four shubbehs, or viziers, who are always natives. When a vacancy occurs in this council it is filled up by the rajah and the remaining members, but the nomination must first be confirmed by the Chinese tazin, and ultimately by the emperor, with whom the real appointment, therefore, virtually rests. A series of officers fill up the inferior departments of the state.—The laws have long been composed, and have a great analogy to those of China.

The religion is Buddhism, the lamas or priests of which are monks, who profess to renounce the pleasures of the world, and devote themselves wholly to exercises of religion. They reject the distinction of caste, and admit proselytes of any nation into their order. They consider themselves as the followers of Sakya Gamba, an incarnation of the deity, who removed from Hindostan to Lassa, about eighteen centuries ago, and has resided there ever since in the person of the dalai lama. There are also several other lamas in Tibet, who are considered as different incarnations of Buddha, particularly the teshoo lama who is the spiritual guide of the Chinese emperor. The dalai lama is considered by his followers as an incarnation of the deity, manifested in a human form, and, when one body dies, he is supposed, after a certain period, to enter into another, and manifest himself afresh to his priests. He never appears in public but once a year, when he goes to worship in the great temple. He pays no attention to domestic concerns, and the Chinese tazin spares him the trouble of attending to the temporal affairs of the government, further than giving his sanction to any important measure that may be transacted by the Chinese functionary. His life seems, therefore, to be passed in a kind of dosing apathy, and, when he dies, his body is exposed to the air till it becomes dry. It is then inshrined in a case of highly-wrought silver, and placed in the temple as an object of worship. Thus the religion of Tibet differs in some essential particulars from that of the Hindoos. The people are divided into two distinct classes, the duty of the one being to transact the business of the world, and that of the other to maintain an intercourse with heaven. The Brahmins acknowledge no superior; but at the head of the Tibetan system is placed the Lama, immortal and immaculate; who is not only the vicegerent of the deity, but the centre of the civil authority. A regular gradation is also maintained through the whole order of the gylongs, from the highest to the youngest noviciate.

The language of Tibet consists chiefly of nasal

and guttural sounds. The characters of the alphabet are of two kinds, the one sacred, and the other employed in common concerns. The manner of writing is from left to right. The gylongs go through a regular course of education, and are the principal instructors of youth. The most celebrated school in Tibet is at Laprang, and is frequented by students from the adjoining countries. The course of education occupies twelve years, which are passed in the study of logic, astronomy, philosophy, medicine, and theology. Captain Turner found them acquainted with the satellites of Jupiter, and Saturn's ring, but their astronomy is merely subservient to astrology. Their sacred alphabet is allowed to have been borrowed from the Sanscrit. Printing has long been known among them; but it is chiefly confined to the multiplication of religious tracts, and is not done by moveable types, but by blocks, or set forms. Though this art has been known from a remote period, the prevalence of superstition, or the want of invention, has prevented any improvement from taking place.

The inhabitants are more robust and less swarthy than the Hindoos. A late traveller represents them of a mild and gentle disposition. The men are stout, and the women of brown ruddy complexion; both deriving health and vigor from the cool breezes of their native mountains. Warm clothing is constantly worn, and is made of a coarse woollen cloth in summer, and of fox or sheep skins, in winter. The loose robes and trowsers of the higher classes, in the neighbourhood of Lassa, are in the warm season frequently made of European broad cloth, and in winter the upper garments of the affluent are lined with sable and other furs. The dress of the religious orders consists of a vest of woollen cloth, with sleeves of a deep garnet color. They also wear a large mantle, with a kind of philibeg, and wide boots, made of hides, and lined with either fur or cloth. The priests of the two orders are distinguished by their dress; those over whom the Dalai lama presides wearing a red cap, while those who belong to the Teshoo lama have a yellow one. Mutton is their chief food, which they prefer raw. They make great use of tea; but are represented as moderate in all their appetites and passions; while humanity and gentleness are leading characteristics in their dispositions. Abdul Russool describes them as an industrious, contented, mild race of men, sluggish in their intellect, and phlegmatic in their amorous propensities. A genuine Tibetan begins the day by public worship (every village containing a temple), and he then pursues his occupations till the evening, which is spent in recreation. Although the Tibetans do not expose themselves to the cruel penances of the Hindoos, yet, like them, they consider pilgrimages to certain places highly meritorious. The same places are also venerated by popular superstition on the heights of Tartary, as on the plains of Bengal. Allahabad, Benares, Durjodum, Saugor island, and Juggernaut, are all resorted to by the natives of Tibet, as well as by the Hindoos; but the two latter places are the most frequented. When a pilgrimage cannot be per-



formed by an individual, much merit is attached to having it accomplished by proxy. The most celebrated place within their own dominions is the peak of Chumularee, one of the highest points of the Himmaleh chain, and to which the Brahminical Hindoos, as well as the Buddhists, resort to pay their adorations to its snow-clad summit.—Such, indeed, is the strength of superstition among the savage and semi-barbarous tribes, that almost every singular object, and every rare phenomenon of nature, whether it be a snowy mountain, a hot spring, a curious lake, or a majestic volcano, is converted into an object of adoration.

Marriage is not contracted till the female is of full age, and it is then arranged by the parents of the parties, or rather by the young man and the parents of the female, who, being selected by the eldest of a family, becomes equally the wife of all the other brothers, without respect to age or numbers; and a female is allowed to transfer her person and property from one man to another, without incurring any reproach for making the first advances. Property descends from father to son, and, when a person dies without issue, it goes to the eldest brother, or his sons; but, when these fail, to his wife and daughters.

TIBULA, an ancient town of Sardinia, now called Lango.

TIBULLUS (Aulus Albius), a Roman knight, and a celebrated Latin poet, was born at Rome, 43 B.C. He was the friend of Horace, Ovid, Macer, and other great men in the reign of Augustus. He accompanied Messala Corvinus in his expedition against Corcyra: but, falling sick, he quitted the profession of arms, and returned to Rome, where he died before the year 17; when Ovid expressed his grief in a fine elegy. Tibullus wrote four books of elegies, which are still extant. The best edition of Tibullus is that *Notis Variorum et Vulpii*, 4to., Patavii, 1749.

TIBUR, an ancient town of Latium, pleasantly situated on the Anio. Here Horace had his villa; and here Adrian built a villa called Tiburtina, inscribed with the names of the provinces; near which Zenobia had a house.—Treb. Pollio. Hither Augustus often retreated.—Suet. Anciently it was the utmost place of banishment.—Ovid. It had a temple of Hercules; with a library.—A. Gell. Now called Tivoli.

TIC-DOLOUREUX, a remarkable disease of the nerves. Dr. Haighton gives the following interesting account of it, which is by much the best that has hitherto appeared in this country:—

Mrs. H—, of Stockwell, Surrey, aged seventy-four, a mother of children, of a spare habit, placid disposition, and for her age much disposed to activity, was about thirteen years ago, for the first time, seized with pain of the face. This pain at its commencement was very moderate, but in its progress became violent: at length it acquired a degree of acuteness which neither words can describe, nor the imagination easily conceive. The seat of this extreme pain was somewhat limited, being confined to the ala nasi and a small portion of the upper lip, on the right side. The pain was not of the continued obtuse kind, like that of chronic rheumatism, but, on the contrary, rather transient,

exceedingly acute and lancinating during its attack. The periods of its recurrence were indefinite, and in the intervals of which she was generally in a state of perfect ease. There was a striking uniformity both in the origin and direction of the pain: it always began in the ala nasi and upper lip, and darted upwards towards the orbit; but, when the attack was more commonly violent, then indeed it extended to other parts, and a sensation of a similar kind, though much less in degree, was frequently perceived in the cheek towards the ear; the same sensation was also observed on the fleshy and bony palate, on the gums and teeth of the upper jaw, and sometimes on the fauces. She seemed particularly disposed to this pain in severe or windy weather. Yet she was not altogether free from it in the milder season. It was most frequently excited by the more obvious occasional causes, such as speaking, coughing, taking food, blowing the nose, &c. Though sometimes it would return from causes less apparent. The duration of each pain seldom exceeded half a minute; but more frequently it was somewhat less. Sometimes she had not more than five or six of these pains in the space of a day, at others nearly twice that number in an hour. They varied sensibly in their degree of violence; sometimes so moderate as only to suspend the movement of the upper lip, but more commonly so pungent as to extort screams expressive of intense agony. Besides the suspension of the motion of the lips, a very opposite effect frequently took place, viz. a tremulous movement, during which it was sometimes drawn a little upward. Notwithstanding there were such extreme pains, neither swelling nor discoloration could be perceived, except such as were occasioned from time to time by external applications. These were the general symptoms. The patient was in the north of England when she was first attacked with this complaint; and, having availed herself of such assistance as was at hand without relief, she consulted Dr. Haighton by letter. As the case was drawn up by herself, though not without some appearance of accuracy, yet he did not conceive her statement of facts sufficiently perspicuous whereon to found an opinion. He therefore desired the case might be written out by some practitioner; but, imagining herself as capable of describing her own feelings as any other, she sent another account somewhat more correct than the former.

From this statement Dr. Haighton began to suspect the complaint to be of the nervous kind; but at the same time considered it only in the vague sense in which we are too apt to use that term. That practitioner must have been either very fortunate, or his practice very circumscribed, who has not, in various instances, experienced the inefficacy of medicine in this class of diseases. However, the extreme agony in the present case made it highly expedient to attempt something for relief; and, despairing to obtain a permanent advantage from the use of any thing which then occurred to him, Dr. Haighton recommended for the present an attention only to the urgency of symptoms by the application of the linimentum ammoniacæ, of such

a strength and such frequency of repetition as might produce the ordinary effects of rubefacient medicines, or, on the inefficacy of this, the exhibition of tincture of opium both internally and externally; likewise electricity in such form as the patient could best bear. In case the above plan had moderated the violence of the attack, he added in reserve to recommend a free use of bark and chalybeates, and aided by wine, and a more nutritive diet than she had been accustomed to, with a view of strengthening the system, and, if possible, to defend it against future attacks; but unfortunately he had to deal with a patient somewhat unmanageable in this respect, being very averse to good living. Some time after this he was informed there had been an evident amendment in a way that seemed to imply a spontaneous termination of the disease, rather than an abatement of symptoms from the power of medicine; he was told that the advantage obtained from the local applications was so very equivocal, that the amendment was attributed more to the mild turn the season took at that time than to the medical treatment which had been adopted. He heard very little more of this case for the space of two years, at the expiration of which she came to reside in the vicinity of London. From her account, it seems that she had several returns of her complaint, but none so violent as the first attack. A few months after her arrival she had a slight return. She was placed upon an insulated chair, and several very strong electrical sparks were drawn from the part by means of a very powerful machine. It produced a redness, together with a slight vesication, and moderated the pain for several days. After that time it was frequently restrained by the same means: but at length it returned with a degree of violence unknown in any former attack, and upon trying electricity in the form of sparks, as before, it was so far from procuring a remission of symptoms, that it seemed to aggravate rather than appease. Under such extreme irritation Dr. Haighton ceased to draw sparks; but, considering that some little advantage had been gained by electricity on a former trial, he used it in a milder form, viz. in what has been called the *aura*, which differs from the former mode in being drawn off silently, by means of a pointed conductor, but no visible effect ensued.

It was only at this period that he begun to form a just idea of the disease. The following circumstance gave rise to it:—While she was endeavouring to describe her feelings, which she attempted in a very inarticulate manner, she stopped suddenly, and, upon looking at the part affected, Dr. Haighton perceived a tremulous motion of the upper lip, by which it was drawn upwards precisely at that part where the *musculus levator labii superioris proprius* is inserted; and from recollecting a well known fact, that a nerve under irritation from stimulating causes produces motion in the muscular parts to which it is distributed, it immediately occurred to him that the suborbital branches of the fifth pair of nerves, which are known to supply these parts, must be the seat of the present disease.

In order, therefore, to reduce (as far as possible) to a certainty, what hitherto was only matter of surmise, he waited for the next exacerbation, which took place in a few minutes, and by making, at this time, rather a forcible pressure upon the integuments covering the suborbital foramen, the pain instantly abated. He repeated this several times, and uniformly with the same effect. As the conjecture relative to the seat of this disease seemed to gain considerable support from this experiment, it was thought essential to take a more minute survey of the symptoms, particularly as being seated in those parts which seemed affected in a secondary or sympathetic way. It appears, from the history of this case, that the extreme pain was seated in the *ala nasi* and upper lip, on the right side; but, when it darted with more than common violence, it affected other parts, as the ear, by extending itself along the course of the cheek, by means of communicating branches belonging to the *portia dura* of the seventh pair, which pair begin to spread on the side of the face as soon as it emerges from behind the condyles of the lower jaw. It attacked also the palate, gums, and teeth of the upper jaw, but no part of the lower; sometimes the fauces; but the part which seemed affected next in degree to the original seat was immediately behind the *dentes incisivi*.

From comparing this assemblage of symptoms with the distribution of the second or superior maxillary portion of the fifth pair of nerves, he was struck with the coincidence, and at the same time was persuaded, as has been already hinted, that the original disease was in those branches of the nerve transmitted by the suborbital foramen, and distributed to the *ala nasi* and upper lip; and that the darting pains extending to the teeth, inside of the gums, and palate, arose from communicating filaments between the suborbital and palatine branches. These communications not only complicated the case, but also placed the prospect of a cure at a great distance, from the various channels by which the pain could be conveyed from the part primarily affected to the sensorium. But, as a temporary advantage had been frequently gained by pressure of the suborbital nerves against the bone, the entire division of them seemed eligible; and it was proposed to the patient as an ultimate expedient. The proposal, however, carried with it some difficulties. It was new to her. It could not ensure success, and, in this distraction of circumstances, the mind of the patient might have remained suspended in doubt, had not the insupportable urgency of pain compelled her to assent.

Having permission to operate, Dr. Haighton began to consider the circumstances of this nerve more attentively, and as the intention was to effect a complete division of its filaments, by an incision of a moderate length, the means conducive to that end became important subjects of regard. It was essential therefore to acquire a knowledge concerning the precise seat of the distribution of this branch of the fifth pair of nerves, the mode of its transition, and exit from the suborbital foramen, together with a clear and



correct idea respecting the seat of the foramen itself. Besides which, it was not altogether extraneous to attend to such contiguous parts as might, either from necessity or accident, be wounded in the operation. This nerve is transmitted by the suborbital foramen, in a way very different from that which the common form of expression on this occasion would lead us to imagine. We usually speak of it as one branch, under the name of suborbital; but in reality it ought to be considered as a series of branches, for it divides before its exit, and is afterwards distributed in a radiated manner to the circumjacent parts, viz. the levator labii superioris proprius, the inferior part of the orbicularis palpebrarum, to the muscles and integuments of the nose and upper lip. From this radiated distribution, it must necessarily happen that the branches of this nerve are spread over an extensive surface at their termination, though contracted into a small compass at their exit from the foramen. It was therefore considered a matter of importance to fix upon a proper part for the operation, in order that its branches, by lying in a small space, might be more conveniently divided.

In its passage through the suborbital foramen, it is accompanied by a branch of the internal maxillary artery, which from its contiguity must necessarily be divided. These are covered by the levator labii superioris proprius, and the common integuments. As the branches of this nerve lie close to each other at the orifice of the foramen, that part seems the most convenient for their division, because an incision of a moderate length will generally include them all.

The next consideration was to determine the exact situation of the foramen. This at first seems very easy, but in reality is not so, because in different skulls the distance of it from the orbit differs considerably, and there does not appear any mode of determining this more probably than by attempting to form a standard from the measurement of a considerable number of skulls.

The space between the inferior edge of the orbit and the superior part of the foramen in thirty skulls was therefore measured, and the distance found to be as follows:—

In two skulls,  $\frac{2}{10}$  of an inch.

In 16 . . . . .  $\frac{1}{10}$

In 8 . . . . .  $\frac{1}{10}$

In 3 . . . . .  $\frac{1}{10}$

In 1 . . . . .  $\frac{1}{10}$

As the distance in sixteen skulls out of thirty was one-quarter of an inch, that is considered as the medium distance from the superior part of the foramen; and, if we allow one-eighth below its inferior part, we consider half an inch from the lower edge of the orbit a proper place for performing the operation.

Having endeavoured to establish a rule for determining its distance from the orbit, it may be proper to ascertain its situation with respect to a line drawn from the inferior part of the internal angular process of the os frontis, obliquely across the orbit, to the centre of the os male. The measurement of this line in thirty skulls

did not vary more than one-eighth of an inch and it was found that a line drawn downward, perpendicular to this oblique line, at the distance of seven-eighths of an inch from the internal angle of the eye, passed across from the suborbital foramen. By this rule Dr. Haighton was able to form a standard of the situation of this foramen in a living subject.

These preliminary circumstances being settled, the operation becomes exceedingly simple, and consists in an incision of three-quarters of an inch in length, carried obliquely downwards, the centre of which must correspond with the foramen, only one-quarter of an inch below it. The incision must be made down to the bone, otherwise we cannot be certain of dividing the nerves, as they are situated very deep. And as there are some irregularities on the surface of the maxillary bone at this part from muscular attachment, as well as a furrow which is sometimes continued from the foramen downwards, a small pointed knife will be preferable to any other, as it will enable the operator to divide with more certainty such nervous filaments as may be seated in these depressions. The facial vein frequently passes over the foramen, and conceals it; from which it is liable to be divided in the operation. If this really happens, or if any of the suborbital branches of the internal maxillary artery should bleed with freedom, a compress may be made with advantage, as they are seated near the bone.

The wound, being dressed superficially, will probably heal by the first intention. In the manner just described, Dr. Haighton performed the operation, and the event has justly satisfied its propriety; it immediately put an end to the pain, and the incision healed in a few days. The patient, who lived many years after the operation, ever contemplated that event with the highest satisfaction.

It is worthy of remark that the sensation and action of that side of the lip, though evidently diminished, were not altogether lost, as might have been predicted. The inconvenience was only temporary: we may therefore suppose a reunion of the nerves had taken place, but with this fortunate effect, that no disposition to the return of the disease through the new formed part has yet appeared.

TICE, *v. a.* From entice. To draw; to allure.

Lovely enchanting language, sugar-cane,

Honey of roses, whither wilt thou fly?

Hath some fond lover tied thee to thy bane?

And wilt thou leave the church, and love a sty?

Herbert.

TICFIELD, a market-town of England, in Hampshire, seated on a rivulet of the same name, that runs into the Southampton water. In this town was an ancient abbey, founded by Peter de Rupibus, bishop of Winchester, anno 1230, and dedicated to the Virgin. The ecclesiastical foundation was of the order of Premonstratensian canons. In this abbey it was said the marriage of king Henry VI. with the princess Margaret of Anjou was celebrated. The abbey and lands were given by Henry VIII. to Sir Thomas Wriothesley, treasurer to that monarch; who, being afterwards

created earl of Southampton, erected on the scite a splendid castellated mansion with lofty towers and a noble gateway; the ruins of which, now overgrown with ivy, form a beautiful object in the rich landscape. The ruins of the once noble hall are also still worthy of attention. Here it was that the unfortunate Charles lay concealed (through the loyalty of the earl of Southampton), after his flight from Hampton Court, 1647. The site is now in possession of the Delmé family, and some years ago a most choice collection of paintings, the property of Peter Delmé, esq., attracted much notice, and drew many visitors to the place. After his decease they were sold by Mr. Christie in Pall Mall, and realised a large sum of money; a pair of Poussains being sold for 1600 guineas. The church is a spacious fabric, the workmanship of different ages. The south side is the most ancient. There is also a charity school here. The town, though small, is inhabited by many respectable families. Population about 4000. Market day Saturday. Fairs March 5th, May 14th, September 25th, and December 3d. The country in the environs is highly variegated with hill and dale, and in a state of the highest cultivation.

**TICHIUS**, the top of mount Ceta.—Liv. 36, 2. 16.

**TICIDA**, a poet of the Augustan age, who wrote epigrams; mentioned by Ovid, Trist. ii. 433.

**TICINO**, or **TESSIN**, a considerable district and canton in the south of Switzerland, situated between the central cantons and the frontier of Lombardy. It was formerly called the Italian bailiwics, and inhabited by Italians, governed by temporary deputies from the respective cantons until 1815, when it was formed into an independent canton, divided into the eight following districts:—

|                  |        |
|------------------|--------|
| Mendrisio . . .  | 12,000 |
| Lugano . . .     | 26,700 |
| Pallemagia . . . | 6,000  |
| Locarno . . .    | 17,400 |
| Bellinzona . . . | 8,000  |
| Riviera . . .    | 3,000  |
| Blegno . . .     | 6,300  |
| Levantina . . .  | 9,600  |
| Total . . .      | 89,000 |

The area of the whole 1130 square miles. The soil is fertile, and the climate mild. No country is better watered, or more remarkable for beautiful scenery. The inhabitants, however, are said to be indolent, and unacquainted with manufactures, the men generally emigrating, like the Savoyards, to large towns in Italy or France, and leaving to the women the care, not only of the cattle, but of tillage. The mountains are covered with forests of chestnuts, the fruit of which, joined to the maize of the valleys, forms the chief food of the inhabitants. There is here less snow and more rain than in the central cantons of Switzerland. Wine is cultivated and exported in small quantities; figs, almonds, and mulberries, all succeed; and the quantity of silk made here is large. The cattle are remarkably small. In the mountains

are found the chamois, white hares, wolves, and even bears. The exports (chiefly to Italy) comprise silk, fruits, cheese, skins, marble, crystals, timber, and straw hats.

**TICINUM**, an ancient name of Pavia.

**TICINUS**, a river of Italy, in Insubria, rising in mount Adula, traversing the lake Verbanus to the south and falling into the Po near Ticinum. Between this river and the Po, Hannibal gained his first victory over the Romans under P. Scipio. It is now called **TEFINO**, which see.

**TICK**, *n. s.* Contracted from ticket, a tally on which debts are scored. Score; trust.

Would the fountain of your mind were clear again, that I might water an ass at it! I had rather be a tick in a sheep, than such a valiant ignorance.

*Shakespeare. Troilus and Cressida.*

If thou hast the heart to try it,  
I'll lend thee back thyself awhile,  
And once more for that carcase vile  
Fight upon tick.

*Hudibras.*

When the money is got into hands that have brought all that they have need of, whoever needs any thing else must go on tick, or barter for it.

*Locke.*

The money went to the lawyers; council won't tick.

*Arbutnot.*

You would see him in the kitchen weighing the beef and butter, paying ready money, that the maids might not run a tick at the market.

*Id. History of John Bull.*

**TICKELL** (Thomas), an English poet, son of the rev. Richard Tickell, born in 1686, at Bridekirk in Cumberland. He was fellow of Queen's College, Oxford, and addressed to Mr. Addison verses on his opera of Rosomond. Addison, being made secretary of state, appointed him his under secretary; and Mr. Craggs continued him in his post. In 1724 Mr. Tickell was appointed secretary to the lords justices in Ireland, which he held for life. He wrote some poems, which met with a favorable reception. He died in 1740.

**TICKELL** (Richard), an English poet and political writer. He published two very popular poems, entitled, 1. The Project; and, 2. The Wreath of Fashion. But his most admired piece was a pamphlet, entitled Anticipation, which came out just two days before the meeting of parliament, in 1779; and in which he imitated the style and sentiments of the leading members of both houses with wonderful precision. He also adapted the Gentle Shepherd to the English stage; and wrote The Carnival of Venice, a comic opera. He died in 1793.

**TICK'ET**, *n. s.* Fr. *etiquet*. A token of any right or debt, upon the delivery of which admission is granted, or a claim acknowledged.

There should be a paymaster appointed, of special trust, which should pay every man according to his captain's ticket, and the account of the clerk of his band.

*Spenser.*

In a lottery with one prize a single ticket is only enriched, and the rest are all blanks.

*Collier on Envy.*

Let fops or fortune fly which way they will,  
Disdains all loss of tickets or codille.

*Pope.*

**TICKHILL**, a market-town, West Riding of York, five miles south of Doncaster, and 156 north by west of London. The town is large



but straggling, and has a spacious and handsome church. It gives name to a jurisdiction of very great extent, and to which many manors owe suit and service. About half a mile from the town is Possington Well, a medicinal bath, now of little repute. To the east is a large piece of water, curiously diversified with rocks and ruins; under one of the rocks is the mouth of a cavern, said to have had communication with a monastery that stood near. Market on Friday.

TICKLE, *v. a., v. n., & adj.* } Lat. *titillo*. To  
TICKLISH, *adj.* } titillate; to affect  
with a prurient sensation by slight touches;  
please slightly: to feel titillation: as an adjective,  
tettering; unfixed; unstable: ticklish is easily  
tickled; tottering; uncertain; nice; fastidious.

Dametas, that of all manners of stile could best conceive of golden eloquence, being withal tickled by Musidorus's praise, had his brain so turned that he became slave to that which he that sued to be his servant offered to give him. *Sidney.*

He with secret joy therefore  
Did tickle inwardly in every vein,  
And his false heart, fraught with all treason's store,  
Was filled with hope his purpose to obtain. *Spenser.*

When the last O'Neal began to stand upon some tickle terms, this fellow, called baron of Dunganon, was set up to beard him. *Id. on Ireland.*

The state of Normandy  
Stands on a tickle point now they are gone. *Shakespeare.*

Expectation tickling skittish spirits,  
Sets all on hazard. *Id.*

Such a nature,  
Tickled with good success, disdains the shadow  
Which it treads on at noon. *Id. Coriolanus.*

Dissembling courtesy! How fine this tyrant  
Can tickle where she wounds. *Id. Cymbeline.*  
The mind is moved in great vehemency only by tickling some parts of the body. *Bacon.*

Ireland was a ticklish and unsettled state, more easy to receive distempers and mutations than England was. *Id.*

It is a good thing to laugh at any rate; and, if a straw can tickle a man, it is an instrument of happiness. *Dryden.*

I cannot rule my spleen;  
My scorn rebels, and tickles me within. *Id.*

A drunkard the habitual thirst after his cups drives to the tavern, though he has in his view the loss of health, and perhaps of the joys of another life, the least of which is such a good as he confesses is far greater than the tickling of his palate with a glass of wine. *Locke.*

Did it stand upon so ticklish and tottering a foundation as some men's fancy hath placed it, it would be no wonder should it frequently vary.

*Woodward's Natural History.*  
How shall our author hope a gentle fate,  
Who dares most impudently not translate?  
It had been civil, in these ticklish times,  
To fetch his fools and knaves from foreign climes. *Swift.*

TICONDEROGA, a township of the United States, in Essex county, New York, on the west side of the south end of Lake Champlain, and at the north end of Lake George, twelve miles south of Crown Point, and ninety-five north of Albany. It has a valuable mine of iron ore.

TICONDEROGA, a fort of the United States, built by the French in 1756, in Essex county,

New York. It is famous in the history of the American wars, and situated on an eminence on the west shore of Lake Champlain, just north of the entrance of the outlet from Lake George into Lake Champlain. Fifteen miles south of Crown Point, and twenty-four north of Whitehall. Long. 73° 62' W., lat. 43° 50' N. It is now in ruins.

TIDE, *n. s., v. a., &* } Sax. *tyð*; Belg. and  
TIDEWAITER. [*v. n.*] } Isl. *tíð*. Time; season;  
while; alternate ebb and flow of the sea; stream;  
course; concurrence; commotion: to tide is,  
to drive with the stream: as a verb neuter to pour  
a flood: a tide-waiter, a custom-house officer,  
who watches the landing of goods.

There they alight, in hope themselves to hide  
From the fierce heat, and rest their weary limbs a  
tide. *Spenser.*

What hath this day deserved,  
That it in golden letter should be set  
Among the high tides in the kalendar? *Shakespeare. King John.*

Thou art the ruins of the noblest man  
That ever lived in the tide of times. *Shakespeare.*

As in the tides of people once up, there want not  
stirring winds to make them more rough, so this people  
did light upon two ringleaders.

*Bacon's Henry VII.*  
At new-year's tide following, the king chose him  
master of the horse. *Wotton.*

The rapid currents drive  
Towards the retreating sea their furious tide. *Milton.*

But let not all the gold which Tagus hides,  
And pays the sea in tributary tides,  
Be bribe sufficient to corrupt thy breast,  
Or violate with dreams thy peaceful rest. *Dryden.*

Their images, the relics of the wreck,  
Torn from the naked poop, are tided back  
By the wild waves, and rudely thrown ashore. *Id.*  
That motion of the water called tides, is a rising  
and falling of the sea: the cause is the attraction of  
the moon, &c. *Locke.*

Continual tide  
Flows from the exhilarating fount. *Phillips.*  
When from his dint the foe still backward shrunk,  
Wading within the Ouse, he dealt his blows,  
And sent them, rolling, to the tiding Humber. *Id.*

Employments will be in the hands of Englishmen;  
nothing left for Irishmen but vicarages and tidewaiters' places. *Swift.*

TIDES. On the shores of the ocean, and in bays, creeks, and harbours, which communicate freely with the ocean, the waters rise up above this mean height twice a day, and as often sink below it, forming what is called a flood and an ebb, a high and a low water. The whole interval between high and low water is called a tide; the water is said to flow and to ebb, and the rising is called the flood tide, and the falling is called the ebb tide. This rise and fall of the waters is variable in quantity. At Plymouth, for instance, it is sometimes twenty-one feet between the greatest and least depth of the water in one day, and sometimes only twelve feet. These different heights of tide succeed each other in a regular series, diminishing from the greatest to the least, and then increasing from the least to the greatest. The greatest is called a spring tide, and the least is called a neap tide. This series is completed in about fifteen days. More careful observation shows that two series are completed in the ex-

act time of a lunation. For the spring tide in any place is observed to happen precisely at a certain interval of time (generally between two and three days) after new or full moon, and the neap tide at a certain interval after half moon; or, to be more accurate, the spring tide always happens when the moon has got a certain number of degrees east of the line of conjunction and opposition, and the neap tide happens when she is a certain number of degrees from her first or last quadrature. Thus the whole series of tides appear to be regulated by the moon. High water happens at new and full moon when the moon has a certain determined position with respect to the meridian of the place of observation, preceding or following the moon's southing a certain interval of time; which is constant with respect to that place, but very different in different places. The time of high water in any place appears to be regulated by the moon; for the interval between the time of high water and the moon's southing never changes above three-quarters of an hour, whereas the interval between the time of high water and noon changes six hours in the course of a fortnight. The interval between two succeeding high waters is variable. It is least of all about new and full moon, and greatest when the moon is in her quadratures. As two high waters happen every day, we may call the double of their interval a tide day, as we call the diurnal revolution of the moon a lunar day. The tide day is shortest about new and full moon, being then about 24h. 37'; about the time of the moon's quadratures it is 25h. 27'. These values are taken from a mean of many observations made at Barbadoes by Dr. Maskelyne. The tides in similar circumstances are greatest when the moon is at her smallest distance from the earth, or in her perigee, and, gradually diminishing, are smallest when she is in her apogee. The same remark is made with respect to the sun's distance; and the greatest tides are observed during the winter months of Europe. The tides in any part of the ocean increase as the moon, by changing her declination, approaches the zenith of that place. The tides which happen while the moon is above the horizon, are greater than the tides of the same day when the moon is below the horizon. There is also a kind of rest or cessation of about half an hour between the flux and reflux; during which time the water is at its greatest height, called high water. The flux is made by the motion of the water of the sea from the equator towards the poles: which, in its progress, striking against the coasts in its way, and meeting with opposition from them, swells, and where it can find passage, as in flats, rivers, &c., rises up and runs into the land. This motion follows, in some measure, the course of the moon; as it loses or comes later every day by about three-quarters of an hour, or, more precisely, by forty-eight minutes; and by so much is the motion of the moon slower than that of the sun. It is always highest and greatest in full moons, particularly those of the equinoxes. In some parts, as at Mount St. Michael, it rises eighty or ninety feet, though in the open sea it never rises above a foot or two; and in some places, as about the Morea, there is no flux at

all. It runs up some rivers above 120 miles. Up the river Thames it only goes eighty, viz., near to Kingston in Surrey. Above London bridge the water flows four hours and ebbs eight; and, below the bridge, flows five hours and ebbs seven.

Homer is the earliest profane author who speaks of the tides; but (in the twelfth book of the *Odyssey*) only takes notice of the tides of Charybdis, which rise and retire thrice in every day. Herodotus and Diodorus Siculus speak more distinctly of the tides in the Red Sea. Pytheas of Marseilles is the first who says any thing of their cause. According to Strabo he had been in Britain, where he must have observed the tides of the ocean. Plutarch says expressly that Pytheas ascribed them to the moon. It is surprising that Aristotle says so little about the tides. The army of Alexander, his pupil, were startled at their first appearance to them near the Persian Gulph: and we should have thought that Aristotle would be well informed of all that had been observed there. But there are only three passages concerning them in all Aristotle's writings, and they are very trivial. In one place he speaks of great tides observed in the north of Europe; in another, he mentions their having been ascribed by some to the moon; and in a third, he says that the tide in a great sea exceeds that in a small one.

The conquest and the commerce of the Romans gave them more acquaintance with tides. Cæsar speaks of them in the fourth book of his *Gallic War*. Strabo, after Posidonius, classes the phenomena into daily, monthly, and annual. He observes that the sea rises as the moon gets near the meridian, whether above or below the horizon, and falls again as she rises or falls; also, that the tides increase at the time of new and full moon, and are greatest at the summer solstice. Pliny explains the phenomena at some length: and says that both the sun and moon are their cause, dragging the waters along with them (book ii., c. 97). Seneca (*Nat. Quest.* iii. 28) speaks of the tides with correctness; and Macrobius (*Somn. Scip.* i. 6) gives a very accurate description of their motions. Such phenomena, however, could not but exercise human curiosity as to their cause. Plutarch (*Plaut. Phil.* iii. 17), Galileo (*Syst. Mund. Dial.* 4), Riccioli in his *Almagest*, ii. p. 374, and Cassendi, ii. p. 27, have collected most of the notions of their predecessors on the subject; but they are of so little importance that they do not deserve our notice. Kepler speaks more like a philosopher.—*De Stella Martis*, and *Epit. Astron.* p. 555. He says that all bodies attract each other, and that the waters of the ocean would all go to the moon were they not retained by the attraction of the earth; and then goes on to explain their elevation under the moon and on the opposite side, because the earth is less attracted by the moon than the nearer waters, but more than the waters which are more remote.

The honor of a complete explanation of the tides was reserved to Sir Isaac Newton. He laid hold of this class of phenomena as the most incontestible proof of universal gravitation, and has given a most beautiful and synoptical view of the



whole subject; contenting himself, however, with merely exhibiting the chief consequences of the general principle, and applying it to the phenomena with singular address. But the wide steps taken by this great philosopher, in his investigation, leave ordinary readers frequently at fault: many of his assumptions require the greatest mathematical knowledge to satisfy us of their truth. The academy of Paris, therefore, proposed to illustrate this among other parts of the principles of natural philosophy, and published the theory of the tides as a prize problem. This produced three excellent dissertations by M'Laurin, Dan. Bernoulli, and Euler. Aided by these, and chiefly by the second, we shall here give a physical theory, and accommodate it to the purposes of navigation, by giving the rules of calculation. It is an unexpected fact that every particle of matter in the solar system is actually deflected toward every other particle; and that the deflection of a particle of matter toward any distant sphere is proportional to the quantity of matter in that sphere directly, and to the square of the distance of the particle from the centre of that sphere inversely; and, having found that the heaviness of a piece of terrestrial matter is nothing but the supposed opponent to the force which we exert in carrying this piece of matter, we conceive it as possessing a property, or distinguishing quality, manifested by its being gravis or heavy. This is heaviness or gravity; and the manifestation of this quality, or the event in which it is seen, whether it be directly falling, or deflecting in a parabolic curve, or stretching a coiled spring, or breaking a rope, or simply pressing on its support, is gravitatio, gravitation; and the body is said to gravitate. When all obstacles are removed from the body, as when we cut the string by which a stone is hung, it moves directly downwards, tendit ad terram. By some metaphysical process, this *nisus ad motum* has been called a tendency in our language, and is used to signify the energy of any active quality in those cases where its simplest and most immediate manifestation is prevented by some obstacle. The stretching the string in a direction perpendicular to the horizon, is a full manifestation of this tendency. This tendency, this energy of its heaviness, is therefore named by the word which distinguishes the quality called gravitation. But Sir Isaac Newton discovered that this deflection of a heavy body differs in no respect from that general deflection observed in all the bodies of the solar system. For sixteen feet, which is the deflection of a stone in one second, has the very same proportion to one-tenth of an inch, which is the simultaneous deflection of the moon, that the square of the moon's distance from the centre of the earth has to the square of the stone's distance from it, namely, that of 3600 to one. Thus we are enabled to compare all the effects of the mutual tendencies of the heavenly bodies with the tendency of gravity, whose effects and measures are familiar to us. If the earth were a sphere, covered to a great depth with water, the water would form a concentric spherical shell; for the gravitation of every particle of its surface would tend to be directed to the centre, and would be equal. The curvature of its surface,

therefore, would be every where the same, that is, it would be the uniform curvature of a sphere.

The waters of the ocean have their equilibrium disturbed by the unequal gravitation of their different particles to the sun or to the moon; and this equilibrium cannot be restored till the waters come in from all parts, and rise up around the line joining the centres of the earth and of the luminary. The spherical ocean must acquire the form of a prolate spheroid generated by the revolution of an ellipse round its transverse axis. The waters will be highest in that place which has the luminary in its zenith, and in the antipodes to that place; and they will be most depressed in all those places which have the luminary in their horizon. Mr. Ferguson, in his *Astronomy*, assigns another cause of this arrangement, viz. the difference of the centrifugal forces of the different particles of water, while the earth is turning round the common centre of gravity of the earth and moon. This, however, is a mistake. It would be just if the earth and moon were attached to the ends of a rod, and the earth kept always the same face toward the moon. It is evident that its absolute quantity may be discovered by our knowledge of the proportion of the disturbing force to the force of gravity. Now this proportion is known; for the proportion of the gravitation of the earth's centre to the sun or moon, to the force of gravity at the earth's surface, is known; and the proportion of the gravitation of the earth's centre to the luminary, to the difference of the gravitations of the centre and of the surface, is also known, being very nearly in the proportion of the distance of the luminary to twice the radius of the earth. We must therefore take the subject more generally, and show the proportion and directions of gravity in every point of the spheroid. We need not, however, again demonstrate that the gravitation of a particle placed any where without a perfect spherical shell, or a sphere consisting of concentric spherical shells, either of uniform density or of densities varying according to some function of the radius, is the same as if the whole matter of the shell or sphere were collected in the centre. We need only remind the reader of some consequences of this theorem which are of continual use in the present investigation. 1. The gravitation to a sphere is proportional to its quantity of matter directly, and to the square of the distance of its centre from the gravitating particle inversely. 2. If the spheres be homogeneous, and of the same density, the gravitations of particles placed on their surfaces, or at distances which are proportional to their diameters, are as the radii; for the quantities of matter are as the cubes of the radii, and the attractions are inversely as the squares of the radii; and therefore the whole gravitations are as  $\frac{r^3}{r^2}$ , or as  $r$ . 3. A particle placed within a sphere has no tendency to the matter of the shell which lies without it, because its tendency to any part is balanced by an opposite tendency to the opposite part. Therefore, 4. A particle placed any where within a homogeneous sphere gravitates to its centre with a force proportional to its distance from it. It is a much more difficult



problem to determine the gravitation of particles to a spheroid. To do this in general terms, and for every situation of the particle, would require a train of propositions which our limits will by no means admit. The ratio of the axes may be obtained and ascertained by knowing the ratio of the gravitation at the pole to that of the equator. See SPHERE, SPHEROID, and PROJECTION OF THE SPHERE. The gravitation of the moon to the earth is to the disturbing force of the sun as 178,725 to 1 very nearly. The lunar gravitation is increased as she approaches the earth in the reciprocal duplicate ratio of the distances. The disturbing force of the sun diminishes in the simple ratio of the distances; therefore the weight of a body on the surface of the earth is to the disturbing force of the sun on the same body, in a ratio compounded of the ratio of 178,725 to 1, the ratio of 3600 to 1, and the ratio of 60 to 1; that is, in the ratio of 38,604,600 to 1. If the mean radius of the earth be 20934500 feet, the difference of the axis, or the elevation of the pole of the watery spheroid produced by the gravitation to the sun, will be  $\frac{1}{2} \times \frac{38604600}{38604600}$  feet, or very nearly twenty-four inches and a half. This is the tide produced by the sun on a homogeneous fluid sphere. It needs no proof that if the earth consists of a solid nucleus of the same density with the water, the form of the solar tide will be the same. But, if the density of the nucleus be different, the form of the tide will be different, and will depend both on the density and on the figure of the nucleus. If the nucleus be of the same form as the surrounding fluid, the whole will still maintain its form with the same proportion of the axis. If the nucleus be spherical, its action on the surrounding fluid will be the same as if all the matter of the nucleus, by which it exceeds an equal bulk of the fluid, were collected at the centre. In this case the ocean cannot maintain the same form; for the action of this central body, being proportional to the square of the distance inversely, will augment the gravity of the equatorial fluid more than it augments that of the circumpolar fluid; and the ocean, which was in equilibrio, by supposition, must now become more protuberant at the poles. It may, however, be again balanced in an elliptical form when it has acquired a just proportion of the axes. The process for determining this is tedious, but precisely similar to the preceding. In the dissertations by Clairault and Boscovich on the Figure of the Earth, this curious problem is treated in the most complete manner. The earth is not a sphere, but swelled out at the equator by the diurnal rotation. But the change of form is so very small, in proportion to the whole bulk, that it cannot sensibly affect the change of form afterwards induced by the sun on the waters of the ocean. For the disturbing force of the sun would produce a certain protuberance on a fluid sphere; and this protuberance depends on the ratio of the disturbing force to the force of gravity at the surface of this sphere. If the gravity be changed in any proportion, the protuberance will change in the same proportion. Therefore, if the body be a spheroid, the protuberance produced at any point by the sun will increase or diminish in the

same proportion that the gravity at this point has been changed by the change of form. Now the change of gravity, even at the pole of the terrestrial spheroid, is extremely small in comparison with the whole gravity. Therefore the change produced on the spheroid will not sensibly differ from that produced on the sphere; and the elevations of the waters above the surface, which they would have assumed independent of the sun's action, will be the same on the spheroid as on the sphere. For the same reason, the moon will change the surface already changed by the sun in the same manner as she would have changed the surface of the undisturbed ocean. Therefore the change produced by both these luminaries in any place will be the same when acting together as when acting separately; and it will be equal to the sum, or the difference of their separate changes, according as these would have been in the same or in opposite directions. The difference between a solar day and a tide day is called the *priming* or the *retardation* of the tides. This is evidently equal to the time of the earth's describing in its rotation an angle equal to the motion of the high water in a day from the sun. The smallest of these retardations is to the greatest as the difference of the disturbing forces to their sum. Of all the phenomena of the tides, this seems liable to the fewest and most inconsiderable derangements from local and accidental circumstances. It therefore affords the best means for determining the proportion of the disturbing forces. By a comparison of a great number of observations made by Dr. Maskelyne at St. Helena and at Barbadoes, places situated in the open sea, it appears that the shortest tide-day is 24h. 37', and the longest is 25h. 27'. This gives  $M : S :: M + S : 37 : 87$ , and  $S : M :: 2 : 4.96$ ; which differs only 1 part in 124 from the proportion of 2 to 5, which Daniel Bernoulli collected from a variety of different observations. We shall therefore adopt the proportion of 2 to 5 as abundantly exact. It also agrees exactly with the phenomena of the nutation of the earth's axis and the precession of the equinoxes. It follows that while the moon moves uniformly from  $56^{\circ} 47' W.$  elongation to  $56^{\circ} 47' E.$ , or from  $123^{\circ} 13' E.$  to  $123^{\circ} 13' W.$ , the tide-day is shorter than the lunar-day; and, while she moves from  $56^{\circ} 47' E.$  to  $123^{\circ} 13'$ , or from  $123^{\circ} 13' W.$  to  $56^{\circ} 47'$ , the tide-day is longer than the lunar-day. The time of high-water, when the sun and moon are in the equator, is never more than forty-seven minutes different from that of the moon's southing (+ or — a certain fixed quantity, to be determined once for all by observation). There is now no difficulty in determining the hour of high-water corresponding to any position of the sun and moon in the equator. The following table of Bernoulli's exhibits these times for every tenth degree of the moon's elongation from the sun. The first or leading column is the moon's elongation from the sun, or from the point of opposition, at the time of high-water. The second is the minutes of time between the moon's southing and the place of high-water. The marks — and + distinguish whether the high-water is before or after the moon's southing.



The third is the hour and minute of high-water. The two remaining columns express the heights of the tides and their daily variations.

| m s. | m h. | s h.   | M S. | M v. |
|------|------|--------|------|------|
| 0    | 0    | 0' 0   | 1000 | 13   |
| 10   | 11½— | 0:28½  | 987  | 38   |
| 20   | 22 — | 0:58   | 949  | 62   |
| 30   | 31½— | 1:28½  | 887  | 81   |
| 40   | 40 — | 2—     | 806  | 91   |
| 50   | 45 — | 2:35   | 715  | 105  |
| 60   | 46½— | 3:13½  | 610  | 92   |
| 70   | 40½— | 3:59½  | 518  | 65   |
| 80   | 25 — | 4:55   | 453  | 24   |
| 90   | 0    | 6—     | 429  | —    |
| 100  | 25 + | 7: 5   | 453  | 24   |
| 110  | 40½+ | 8: 0½  | 518  | 65   |
| 120  | 46½+ | 8:46½  | 610  | 92   |
| 130  | 45 + | 9:25   | 715  | 105  |
| 140  | 40 + | 10—    | 806  | 91   |
| 150  | 31½+ | 10:31½ | 887  | 81   |
| 160  | 22 + | 11: 2  | 949  | 62   |
| 170  | 11½+ | 11:31½ | 987  | 38   |
| 180  | 0 +  | 12—    | 1000 | 13   |

The tide is the height of high-water above low-water. This is the interesting circumstance in practice. Many circumstances render it almost impossible to say what is the elevation of high-water above the natural surface of the ocean. In many places the surface at low water is above the natural surface of the ocean. This is the case in rivers at a great distance from their mouths. This may appear absurd, and is certainly very paradoxical; but a little attention to the motion of running waters will explain this completely. Whatever checks the motion of water in a canal must raise its surface. Water in a canal runs only in consequence of the declivity of this surface; therefore a flood tide coming to the mouth of a river checks the current of its waters, and they accumulate at the mouth. This checks the current farther up, and therefore the waters accumulate there also; and this checking of the stream, and consequent rising of the waters, is gradually communicated up the river to a great distance. The water rises every where, though its surface still has a slope. In the mean time the flood tide at the mouth passes by, and an ebb succeeds. This must accelerate even the ordinary course of the river. It will more remarkably accelerate the river now raised above its ordinary level, because the declivity at the mouth will be so much greater. Therefore the waters near the mouth by accelerating will sink in their channel, and increase the declivity of the canal beyond them. This will accelerate the waters beyond them; and thus a stream more rapid than ordinary will be produced along the whole river, and the waters will sink below their ordinary level. Thus there will be an ebb below the ordinary surface as well as a flood above it, however

sloping that surface may be. Hence we cannot tell what is the natural surface of the ocean by any observations made in a river, even though near its mouth. Yet even in rivers we have regular tides, subjected to all the varieties deduced from this theory. But the geometrical construction of this problem not only explains all the interesting circumstances of the tides, but also points them out, almost without employing the judgment, and exhibits to the eye the gradual progress of each phenomenon. But on these we cannot enlarge. On the whole, the solar force does not vary much, and may be retained as constant without any great error. But the change of the moon's force has great effects on the tides both as to their time and their quantity. I. As to their time. 1. The tide day following a spring tide is 24h. 27' when the moon is in perigee, but 24h. 33' when she is in apogee. See APOGEE and PERIGEE. 2. The tide day following neap tide is 25h. 15', and 25h 40' in these two situations of the moon. 3. The greatest interval of time between high water and the moon's southing is 39' and 61'; the angle  $\gamma$  being  $9^{\circ} 45'$  in the first case, and  $15^{\circ} 15'$  in the second. II. As to their heights. 1. If the moon is in perigee when new or full, the spring tide will be eight feet instead of seven, which corresponds to her mean distance. The very next spring tide happens when she is near her apogee, and will be six feet instead of seven. The neap tides happen when she is at her mean distance, and will therefore be three feet. But, if the moon be at her mean distance when new or full, the two succeeding spring tides will be regular, or seven feet, and one of the neap tides will be four feet and the other only two feet.

Mr. Bernoulli gives the following table of the time of high water for the chief situations of the moon, viz. her perigee, mean distance, and apogee:—It may be had by interpolation for all intermediate positions with as great accuracy as can be hoped for in phenomena which are subject to such a complication of disturbances.

| ☾ and ☉ | P.  | M.  | A.  |
|---------|-----|-----|-----|
| 0       | 0   | 0   | 0   |
| 10      | 9½  | 11½ | 14  |
| 20      | 18  | 22  | 27½ |
| 30      | 26  | 31½ | 39½ |
| 40      | 33  | 40  | 50  |
| 50      | 37½ | 45  | 56  |
| 60      | 38½ | 46½ | 58  |
| 70      | 33½ | 40½ | 50½ |
| 80      | 22  | 25  | 31  |
| 90      | 0   | 0   | 0   |
|         | +   | +   | +   |
| 100     | 21  | 25  | 31  |
| 110     | 33½ | 40½ | 50½ |
| 120     | 38½ | 46½ | 58  |
| 130     | 37½ | 45  | 56  |
| 140     | 33  | 40  | 50  |
| 150     | 26  | 31½ | 39½ |
| 160     | 18  | 22  | 27½ |
| 170     | 9½  | 11½ | 14  |
| 180     | 0   | 0   | 0   |

The first column contains the moon's elongation from the sun. The columns P, M, A, contain the minutes of time which elapse between the moon's southing and high water, according as she is in perigee, at her mean distance, or in apogee. The sign — indicates the priority, and + the posteriority, of high water to the moon's southing.

The reader will probably be making some comparison in his own mind of the deductions from this theory with the actual state of things. He will find some considerable resemblances; but he will also find such great differences as will make him very doubtful of its justness. In very few places does the high water happen within three-fourths of an hour of the moon's southing, as the theory leads him to expect; and in no place whatever does the spring tide fall on the day of new and full moon, nor the neap tide on the day of her quadrature. These always happen two or three days later. By comparing the difference of high water and the moon's southing in different places, he will hardly find any connecting principle. This shows evidently that the cause of this irregularity is local, and that the justness of the theory is not affected by it. By considering the phenomena in a navigable river, he will learn the real cause of the deviation. A flood tide arrives at the mouth of a river. The true theoretical tide differs in no respect from a wave. Suppose a spring tide actually formed on a fluid sphere, and the sun and moon then annihilated. The elevation must sink, pressing the under waters aside, and causing them to rise where they were depressed. The motion will not stop when the surface comes to a level; for the waters arrived at that position with a motion continually accelerated. They will therefore pass this position as a pendulum passes the perpendicular, and will rise as far on the other side, forming a high water where it was low water, and a low water where it was high water; and this would go on for ever, oscillating in a time which mathematicians can determine, if it were not for the viscosity, or something like friction, of the waters. If the sphere is not fluid to the centre, the motion of this wave will be different. The elevated waters cannot sink without diffusing themselves likewise, and occasioning a great horizontal motion in order to fill up the hollow at the place of low water. This motion will be greatest about half way between the places of high and low water. The shallower we suppose the ocean the greater must this horizontal motion be. The resistance of the bottom (though perfectly smooth and even) will greatly retard all the way to the surface. Still, however, it will move till all be level, and will even move a little farther and produce a small flood and ebb where the ebb and flood had been. Then a contrary motion will obtain; and, after a few oscillations, which can be calculated, it will be insensible. If the bottom of the ocean (which we still suppose to cover the whole earth) be uneven, with long extended valleys running in various directions, and with elevations reaching near the surface, it is evident that this must occasion great irregularities in the motion of the undermost waters,

both in respect of velocity and direction, and even occasion small inequalities on the surface, as we see in a river with a rugged bottom and rapid current. The deviations of the under currents will drag with them the contiguous incumbent waters, and thus occasion great superficial irregularities. Now a flood, arriving at the mouth of a river, must act precisely as this great wave does. It must be propagated up the river (or along it, even though perfectly level) in a certain time, and we shall have high water at all the different places in succession. This is distinctly seen in all rivers. It is high water at the mouth of the Thames at three o'clock, and later as we go up the river, till at London Bridge we have not high water till three o'clock in the morning, at which time it is again high water at the Nore. But in the mean time there has been low water at the Nore, and high water about half way to London; and, while the high water is proceeding to London, it is ebbing at this intermediate place, and is low water there when it is high water at London and at the Nore. Did the tide extend as far beyond London as London is from the Nore, we should have three high waters with two low waters interposed. The most remarkable instance of this kind is the Maragnon or Amazon river in South America. It appears, by the observations of Condamine and others, that between Para at the mouth of the river, and the conflux of the Madera and Maragnon, there are seven co-existent high waters, with six low waters between them. Nothing can more evidently show that the tides in these places are nothing but the propagation of a wave. The velocity of its superficial motion, and the distance to which it will insensibly go, must depend on many circumstances. A deep channel and gentle acclivity will allow it to proceed much farther up the river, and the distance between the successive summits will be greater than when the channel is shallow and steep. If we apply the ingenious theory of Chevalier Buat, we may tell both the velocity of the motion and the interval of the successive high waters. It may be imitated in artificial canals, and experiments of this kind would be very instructive. We have said enough at present for our purpose of explaining the irregularity of the times of high water in different places, with respect to the moon's southing. But we now see clearly, that something of the same kind must happen in all great arms of the sea which are of an oblong shape, and communicate by one end with the open ocean. The general tide in this ocean must proceed along this channel, and the high water will happen on its shores in succession. This also is distinctly seen. The tide in the Atlantic Ocean produces high water at new and full moon, at a later and later hour along the south coast of Great Britain in proportion as we proceed from Scilly Islands to Dover. In the same manner it is later and later as we come along the east coast from Orkney to Dover. Yet even in this progress there are considerable irregularities owing to the sinuosities of the shores, deep indented bays, prominent capes, and extensive ridges and valleys in the channel. A similar progress is observed



along the coasts of Spain and France, the tide advancing gradually from the south, turning round cape Finisterre, running along the north coast of Spain, and along the west and north coasts of France. The attentive consideration of these facts will not only satisfy us with respect to this difficulty, but will enable us to trace a principle of connexion amidst all the irregularities that we observe. And if we note the difference between the time of high water of spring tide as given by theory for any place, and the observed time of high water, we shall find this interval to be very nearly constant through the whole series of tides during a lunation. Suppose this interval to be forty hours. We shall find every other phenomenon succeed after the same interval. And, if we suppose the moon to be in the place where she was forty hours before, the observation will agree pretty well with the theory, as to the succession of tides, the length of tide day, the retardations of the tides, and their gradual diminution from spring to neap tide. We say pretty well; for there still remain several small irregularities, different in different places, and not following any observable law. These are therefore local, and owing to local causes, as we shall point out. There is also a general deviation of the theory from the real series of tides. The neap tides, and those adjoining, happen a little earlier than the corrected theory points out. Thus at Brest (where more numerous and accurate observations have been made than at any other place in Europe), when the moon changes precisely at noon, it is high water at 3 h. 38'. When the moon enters her second quarter, at noon, it is high water at 8 h. 40', instead of 9 h. 48', which theory assigns. Something similar, and within a very few minutes equal to this, is observed in every place on the sea-coast. This is therefore something general, and indicates a real defect in the theory. But this arises from the same cause with the other general deviation, viz. that the greatest and least tides do not happen on the days of full and half moon, but a certain time after. We shall attempt to explain this. We set out with the supposition that the water acquired in an instant the elevation competent to its equilibrium. But this is not true. No motion is instantaneous, however great the force; and every motion, and change of motion, produced by a sensible or finite force, increases from nothing to a sensible quantity by infinitely small degrees. Time elapses before the body can acquire any sensible velocity; and, in order to acquire the same sensible velocity by the action of different forces acting similarly, a time must elapse inversely proportional to the force. An infinitely small force requires a finite time for communicating even an infinitely small velocity; and a finite force, in an infinitely small time, communicates only an infinitely small velocity; and, if there be any kind of motion which changes by insensible degrees, it requires a finite force to prevent this change. Thus a bucket of water, hanging by a cord lapped round a light and easily moveable cylinder, will run down with a motion uniformly accelerated; but this motion will be prevented by hanging an equal bucket on the other side, so as to act with a

finite force. This force prevents only infinitely small accelerations. It is therefore an infinitesimal of the first order, and may be restored in an instant, or the continuation of the depression prevented by a certain finite force. The weight of the rope makes it hang in an oblong curve, just as the force of the moon raises the waters of the ocean. Turn the rollers slowly, and the rope unwinding at one side, and winding up on the other side of the roller, will continue to form the same curve; but turn the roller the other way very briskly, and the rope will now hang in a curve considerably from the perpendicular; so that the force of gravity may in an instant undo the infinitely small elevation produced by the turning. This phenomenon has puzzled many persons not unaccustomed to such discussions. But another view of this matter leads to the same conclusion. There can be no doubt that the interval between high and low water is not sufficient for producing all the accumulation necessary for equilibrium in an ocean so very shallow. The horizontal motion necessary for gathering together so much water along a shallow sea would be prodigious. Therefore it never attains its full height; and when the waters, already raised to a certain degree, have passed the situation immediately under the moon, they are still under the action of accumulating forces, although these forces are now diminished. They will continue rising, till they have so far passed the moon that their situation subjects them to depressing forces. If they have acquired this situation with an accelerated motion, they will rise still farther by their inherent motion, till the depressing forces have destroyed all their acceleration, and then they will begin to sink again. It is in this way that the nutation of the earth's axis produces the greatest inclination, not when the inclining forces are greatest, but three months after. It is thus that the warmest time of the day is a considerable while after noon, and that the warmest season is considerably after midsummer. The warmth increases till the momentary waste of heat exceeds the momentary supply. Hence we conclude that it may be demonstrated that, in a sphere fluid to the centre, the time of high water cannot be less, and may be more, than three lunar hours after the moon's southing. As the depth of the ocean diminishes, this interval also diminishes. It is perhaps impossible to assign the distance at which the summit of the ocean may be kept while the earth turns round its axis. We can only see that it must be less when the accumulating force is greater, and therefore less in spring tides than in neap tides; but the difference may be insensible. All this depends on circumstances with which we are little acquainted; many of these circumstances are local: and the situation of the summit of the ocean, with respect to the moon, may be different in different places. Nor have we been able to determine theoretically what will be the height of the summit. It will certainly be less than the height necessary for perfect equilibrium. The result of all this reasoning is, that we must always suppose the summit of the tide is at a certain distance east of the place assigned by the theory. Mr. Bernoulli

concludes, from a very copious comparison of observations at different places, that the place of high water is about  $20^\circ$  to the eastward of the place assigned by the theory. Therefore the table formerly given will correspond with observation, if the leading column of the moon's elongation from the sun be altered accordingly. We insert it again in this place, with this alteration, and add three columns for the times of high water. Thus changed it will be of great use. We have now an explanation of the acceleration of the neap tides, which should happen six hours later than the spring tides. They are in fact tides corresponding to positions of the moon, which are  $20^\circ$  more, and not the real spring and neap tides. These do not happen till two days after; and, if the really greatest and least tides be observed, the least will be found six hours later than the first.

| Elongation of Moon. | High Water before or after Moon's Southing. |        |       | Time of High Water. |          |       |
|---------------------|---|--------|-------|---------------------|----------|-------|
|                     | Perig.                                      | M. D.  | Apog. | Perig.              | M. Dist. | Apog. |
| 0                   | 18 a.                                       | 22 a.  | 27½   | 0-18                | 0-22     | 0-27½ |
| 10                  | 9½ a.                                       | 11½    | 14    | 0-49½               | 0-51½    | 0-54  |
| 20                  | 0 a.  | 0      | 0     | 1-20                | 1-20     | 1-20  |
| 30                  | 9½ b.                                       | 11½ b. | 14 b. | 1-50½               | 1-48     | 1-46  |
| 40                  | 18 b.                                       | 22     | 37½   | 2-22                | 2-18     | 2-12  |
| 50                  | 26  | 31½    | 39½   | 3-54                | 2-48     | 2-40  |
| 60                  | 33  | 40     | 50    | 3-27                | 3-20     | 3-10  |
| 70                  | 37½   | 45     | 56    | 4-02½               | 3-55     | 3-44  |
| 80                  | 38½   | 46½    | 58    | 4-41½               | 4-33     | 4-22  |
| 90                  | 33½   | 40½    | 50½   | 5-26½               | 5-19     | 5-09  |
| 100                 | 22  | 25     | 31    | 6-19                | 6-15     | 6-09  |
| 110                 | 0   | 0      | 0     | 7-20                | 7-20     | 7-20  |
| 120                 | 22 a.                                       | 25 a.  | 31 a. | 8-21                | 8-25     | 8-31  |
| 130                 | 33½ a.                                      | 40½    | 50½   | 9-13                | 9-20     | 9-30  |
| 140                 | 38½   | 46½    | 58    | 9-58½               | 10-06    | 10-18 |
| 150                 | 37½   | 45     | 56    | 10-37½              | 10-45    | 10-56 |
| 160                 | 33  | 40     | 50    | 11-13               | 11-20    | 11-30 |
| 170                 | 26  | 31½    | 29½   | 11-46               | 11-51    | 11-59 |
| 180                 | 18  | 22     | 27½   | 0-18                | 0-22     | 0-27  |

This table is general; and exhibits the times of high water, and their difference from those of the moon's southing, in the open sea, free from all local obstructions. If therefore the time of high water in any place on the earth's equator (for we have hitherto considered no other) be different from this table (supposed correct), we must attribute the difference to the distinguishing circumstances of the situation. Thus every place on the equator should have high water on the day that the moon, situated at her mean distance, changes precisely at noon, at 22' P. M., because the moon passes the meridian along with the sun by supposition. Therefore, to make use of this

table, we must take the difference between the first number of the column, entitled time of high water, from the time of high water at full and change peculiar to any place, and add this to all the other numbers of that column. This adapts the table to the given place. Thus, to know the time of high water at Leith when the moon is  $50^\circ$  east of the sun, at her mean distance from the earth, take 22' from 4 h. 30', there remains 4-08. Add this to 2 h. 48', and we have 6 h. 56' for the hour of high water. (The hour of high water at new and full moon for Edinburgh is marked 4 h. 30' in Maskelyne's tables, but we do not pretend to give it as the exact determination. This would require a series of accurate observations). It is by no means an easy matter to ascertain the time of high water with precision. It changes so very slowly, that we may easily mistake the exact minute. The best method is to have a pipe with a small hole near its bottom, and a float with a long graduated rod. The water gets in by the small hole, and raises the float, and the smallness of the hole prevents the sudden and irregular starts which waves would occasion. Instead of observing the moment of high water, observe the height of the rod about half an hour before, and wait after high water till the rod comes again to that height: take the middle between them. The water rises sensibly half an hour before the top of the tide, and quickly changes the height of the rod, so that we cannot make a great mistake in the time. Bernoulli has made a very careful comparison of the theory thus corrected, with the great collection of observations preserved in the *Dépôt de la Marine*. at Brest and Rochefort (see Cassini Mem. Acad. Paris, 1734); and finds the coincidence very great, and far exceeded any rule which he had ever seen. Indeed we have no rules but what are purely empirical, or which suppose a uniform progression of the tides. The heights of the tides are much more affected by local circumstances than the regular series of their times. The regular spring tide should be to the neap tide in the same proportion in all places; but nothing is more different than this proportion. In some places the spring tide is not double the neap tide, and in other places it is more than quadruple. This prevented Bernoulli from attempting to fix the proportion by means of the height of the tides. Newton had, however, done it by the tides at Bristol, and made the lunar force almost five times greater than the solar force. But this was very ill-founded, for the reason now given. Yet Bernoulli saw that in all places the tides gradually decreased by a similar law with the theoretical tides, and has given a very ingenious method of accommodating the theory to any tides which may be observed. The result cannot be far from the truth. The following table is calculated for the three chief distances of the moon from the earth:—



| Along<br>☉ & ☾ | Height of the Tide. |   |        |               |   |        |               |   |        |
|----------------|---------------------|---|--------|---------------|---|--------|---------------|---|--------|
|                | Moon in Perig.      |   |        | Moon in M. D. |   |        | Moon in Apog. |   |        |
| 0              | 0.99 A              | + | 0.15 B | 0.88 A        | + | 0.12 B | 0.79 A        | + | 0.08 B |
| 10             | 1.10 A              | + | 0.04 B | 0.97 A        | + | 0.03 B | 0.87 A        | + | 0.02 B |
| 20             | 1.14 A              | + | 0.00 B | 1.00 A        | + | 0.00 B | 0.90 A        | + | 0.00 B |
| 30             | 1.10 A              | + | 0.04 B | 0.97 A        | + | 0.03 B | 0.87 A        | + | 0.02 B |
| 40             | 0.99 A              | + | 0.15 B | 0.88 A        | + | 0.12 B | 0.79 A        | + | 0.08 B |
| 50             | 0.85 A              | + | 0.32 B | 0.75 A        | + | 0.25 B | 0.68 A        | + | 0.18 B |
| 60             | 0.67 A              | + | 0.53 B | 0.59 A        | + | 0.41 B | 0.53 A        | + | 0.29 B |
| 70             | 0.46 A              | + | 0.75 B | 0.41 A        | + | 0.59 B | 0.37 A        | + | 0.41 B |
| 80             | 0.28 A              | + | 0.96 B | 0.25 A        | + | 0.75 B | 0.23 A        | + | 0.53 B |
| 90             | 0.13 A              | + | 1.13 B | 0.12 A        | + | 0.88 B | 0.11 A        | + | 0.62 B |
| 100            | 0.03 A              | + | 1.24 B | 0.03 A        | + | 0.97 B | 0.03 A        | + | 0.68 B |
| 110            | 0.00 A              | + | 1.28 B | 0.00 A        | + | 1.00 B | 0.00 A        | + | 0.70 B |
| 120            | 0.03 A              | + | 1.24 B | 0.03 A        | + | 0.97 B | 0.03 A        | + | 0.68 B |
| 130            | 0.13 A              | + | 1.13 B | 0.12 A        | + | 0.88 B | 0.11 A        | + | 0.62 B |
| 140            | 0.28 A              | + | 0.96 B | 0.25 A        | + | 0.75 B | 0.23 A        | + | 0.53 B |
| 150            | 0.46 A              | + | 0.75 B | 0.41 A        | + | 0.59 B | 0.37 A        | + | 0.41 B |
| 160            | 0.67 A              | + | 0.53 B | 0.59 A        | + | 0.41 B | 0.53 A        | + | 0.29 B |
| 170            | 0.85 A              | + | 0.32 B | 0.75 A        | + | 0.25 B | 0.68 A        | + | 0.18 B |
| 180            | 0.99 A              | + | 0.15 B | 0.88 A        | + | 0.12 B | 0.79 A        | + | 0.08 B |

This table is corrected from the retardation arising from the inertia of the waters. Thus, when the moon is  $20^\circ$  from the sun, the mean distance tide is 1.00 A + 0.00 B, which is the theoretical tide corresponding to conjunction or opposition.

We have now given in sufficient detail the phenomena of the tides along the equator, when the sun and moon are both in the equator, showing both their times and their magnitude. When we recollect that all the sections of an oblong spheroid by a plane passing through an equatorial diameter are ellipses, and that the compound tide is a combination of two such spheroids, we perceive that every section of it through the centre, and perpendicular to the plane in which the sun and moon are situated, is also an ellipse, whose shorter axis is the equatorial diameter of a spring tide. This is the greatest depression in all situations of the luminaries; and the points of greatest depression are the lower poles of every compound tide. When the luminaries are in the equator, these lower poles coincide with the poles of the earth. The equator, therefore, of every compound tide is also an ellipse, the whole circumference of which is lower than any other section of this tide, and gives the place of low water in every part of the earth. In like manner, the section through the four poles, upper and lower, gives the place of high water. These two sections are terrestrial meridians or hour circles, when the luminaries are in the equator. Hence it follows that all that we have already said as to the times of high and low water may be applied to every place on the surface of the earth, when the sun and moon are in the equator. But the heights of tide will diminish as we recede from the equator. The heights must be reduced in the proportion of radius to the cosine of the latitude of the place. But in every other situation of the sun and moon all the circumstances vary exceedingly. It is true that the determination of the elevation of

the waters in any place whatever is equally easy. The difficulty is to exhibit for that place a connected view of the whole tide, with the hours of flood and ebb, and the difference between high and low water. This is not indeed difficult; but the process by the ordinary rules of spherical trigonometry is tedious. When the sun and moon are not near conjunction or opposition, the shape of the ocean resembles a turnip, which is flat and not round in its broadest part. Before we can determine with precision the different phenomena in connexion, we must ascertain the position or attitude of this turnip; making on the surface of the earth both its elliptical equators. One of these is the plane passing through the sun and moon, and the other is perpendicular to it, and marks the place of low water. And we must mark in like manner its first meridian, which passes through all the four poles, and marks on the surface of the earth the place of high water. The position of the greatest section of this compound spheroid is often much inclined to the earth's equator; nay, sometimes is at right angles to it when the moon has the same right ascension with the sun, but a different declination. In these cases the ebb tide on the equator is the greatest possible; for the lower poles of the compound spheroid are in the equator. Such situations occasion a very complicated calculus. We must therefore content ourselves with a good approximation. And first, with respect to the times of high water. It will be sufficient to conceive the sun and moon as always in one plane, viz. the ecliptic. The orbits of the sun and moon are never more inclined than  $5^\circ 30'$ . This will make very little difference; for, when the luminaries are so situated that the great circle through them is much inclined to the equator, they are then very near to each other, and the form of the spheroid is little different from what it would be if they were really in conjunction or opposition. It will

therefore be sufficient to consider the moon in three different situations. 1. In the equator. The point of highest water is never farther from the moon than  $15^\circ$ , when she is in apogee and the sun in perigee. Therefore, to have the time of high water, multiply the numbers of the columns which express the difference of high water and the moon's southing by  $\frac{1}{15}$ , and the products give the real difference. It is more difficult to find the time of low water; and we must either go through the whole trigonometrical process or content ourselves with a less perfect approximation. The trigonometrical process is not indeed difficult. But it will be abundantly exact to consider the tide as accompanying the moon only. Hence the two tides of one lunar day may be considerably different, and it is proper to distinguish them by different names, as a superior tide which happens when the moon is above the horizon during high water, and the inferior tide. From this construction we may learn in general, 1. When the moon has no declination, the durations and also the heights of the superior and inferior tides are equal in all parts of the world. 2. When the moon has declination, the duration and also the height of a superior tide at any place is greater than that of the inferior; or is less than it, according as the moon's declination and the latitude of the place are of the same or opposite names. This is a very important circumstance. It frequently happens that the inferior tide is found the greatest when it should be the least; which is particularly the case at the Nore. This shows, without further reasoning, that the tide at the Nore is only a branch of the regular tide. The regular tide comes in between Scotland and the continent; and, after travelling along the coast, reaches the Thames, while the regular tide is just coming in again between Scotland and the continent. 3. If the moon's declination is equal to the co-latitude of the place, or exceeds it, there will be only one tide in a lunar day. It will be a superior or inferior tide, according as the declination of the moon and the latitude of the place are of the same or opposite kinds. Thus the difference of the durations of the superior and inferior tides of the same day increase both with the moon's declination and with the latitude of the place. The heights of the tides are affected no less remarkably by the different situations of the moon, and of the place of observation. Therefore at high water, which by the theory is in the place directly under the moon, the height of the tide is as the square of the cosine of the moon's zenith or nadir distance. Hence we derive a construction which solves all questions relating to the height of the tides with great facility, free from all the intricacy and ambiguities of the algebraic analysis employed by Bernoulli. 1. The greatest tides happen when the moon is in the zenith or nadir of the place of observation. 2. When the moon is in the equator, the superior and inferior tides have equal height. 3. If the place of observation is in the equator, the inferior and superior tides are again equal, whatever is the moon's declination. 4. The superior tides are greater or less than the inferior tides according as the latitude and declination are of

the same or of opposite names. 5. If the co-latitude be equal to the declination, or less than it, there will be no inferior tide, or no superior tide, according as the latitude of the place, and declination of the moon, are of the same or opposite names; and the low water of its only tide is the summit of the inferior tide. 6. At the pole there is no daily tide; but there are two monthly tides, and it is low water when the moon is in the equator. N. B. The moon's declination never exceeds  $30^\circ$ . Therefore  $\cos. 2 M Q$  is always a positive quantity, and never less than half, which is the cosine of  $60^\circ$ . While the latitude is less than  $45^\circ$ ,  $\cos. 2 \text{ lat.}$  is also a positive quantity. When it is precisely  $45^\circ$  the cosine of its double is 0; and, when it is greater than  $45^\circ$ , the cosine of its double is negative. Hence we see, 1. That the medium tides are equally affected by the northern and southern declinations of the moon. 2. If the latitude of the place is  $45^\circ$ , the medium tide is always  $\frac{1}{2} M$ . This is the reason why the tides along the coasts of France and Spain are so little affected by the declination of the moon. 3. If the latitude is less than  $45^\circ$ , the mean tides increase as the moon's declination diminishes. All that we have now said may be said of the solar tide. Also the same things hold true of spring tides. But to ascertain the effects of declination and latitude on other tides, we must make a much more complicated construction, even though we suppose both luminaries in the ecliptic. For in this case the two depressed poles of the watery spheroid are not in the poles of the earth; and therefore the sections of the ocean, made by meridians, are by no means ellipses. The inaccuracies are not so great in intermediate tides, and respect chiefly the time of high water and the height of low water. The exact computation is very tedious and peculiar, so that it is hardly possible to give any account of a regular progress of phenomena; and all we can do is, to ascertain the precise heights of detached points. For which reasons we must content ourselves with the construction already given. It is the exact geometrical expression of Bernoulli's analysis, and its consequences now related contain all that he has investigated. Thus have we obtained a general, though not very accurate, view of the phenomena which must take place in different latitudes and in different declinations of the sun and moon, provided that the physical theory which determines the form and position of the watery spheroid be just. We have only to compute, by a very simple process of spherical trigonometry, the place of the pole of this spheroid. If we were to compare this theory with observation, without further consideration, we should still find it unfavorable, partly in respect of the heights of the tides, and more remarkably in respect of the time of low water. We must again consider the effects of the inertia of the waters, and recollect that a regular theoretical tide differs very little in its progress from the motion of a wave. Even along the free ocean, its motion much resembles that of any other wave. All waves are propagated by an oscillatory motion of the waters, precisely similar to that of a pendulum. It is well known that if a pendulum



receive a small impulse in the time of every descent, its vibrations may be increased to infinity. Did the successive actions of the sun or moon just keep time with the natural propagation of the tides as the natural oscillations of the waters, the tides would also augment to infinity; but there is an infinite odds against this exact adjustment. It is much more probable that the action of to-day interrupts or checks the oscillation produced by yesterday's action, and that the motion which we perceive in this day's tide is what remains and is compounded with the action of to-day. This being the case, we should expect that the nature of any tide will depend much on the nature of the preceding tide. Therefore we should expect that the superior and inferior tides of the same day will be more nearly equal than the theory determines. The whole course of observation confirms this. In latitude  $45^\circ$ , the superior and inferior tides of one day may differ in the proportion of two and a half to one, and the tides corresponding to the greatest and least declinations of the moon may differ nearly as much. But the difference of superior and inferior tides, as they occur in the list of Observations at Rochefort, is not the third part of this, and the changes made by the moon's declination is not above one-half. Therefore we shall come much nearer the true measure of a spring tide, by taking the arithmetical mean, than by taking either the superior or inferior. We should expect less deviation from the theory in the gradual diminution of the tides from spring tide to neap tide, and in the gradual changes of the medium tide by the declination of the moon; because the successive changes are very small; and when they change in time, that is, diminish after having for some time augmented, the change is by insensible degrees. This is most accurately confirmed by observation. The vast collection made by Cassini of the observations at Brest being examined by Bernoulli, and the medium of the two tides in one day being taken for the tide of that day, he found a considerable agreement between them. He found no less agreement in the changes of the medium tides by the moon's declination. In like manner, the changes produced by the different distances of the moon from the earth, were found abundantly conformable to the theory, although not so exact as the other. This difference or inferiority is easily accounted for: When the moon changes in her mean distance, one of the neap tides is uncommonly small, and therefore the successive diminutions are very great, and one tide sensibly affects another. The same circumstance operates when she changes in apogee, by reason of a very large spring tide. And the changes corresponding both to the sun's distance from the earth and his declination agreed almost exactly. All these things considered together, we have abundant reason to conclude that not only the theory itself is just in principle (which no intelligent naturalist can doubt), but also that the data which are assumed in the appellation are properly chosen; that is, that the proportion of two to five is very nearly the true proportion of the mean solar and lunar forces. If we now compute the medium tide for any place in succession, from spring tide

to : cap tide, and, still more, if we compute the series of times of their occurrence, we shall find as great an agreement as can be desired. Not but that there are many irregularities; but these are evidently so anomalous that we can ascribe them to nothing but circumstances which are purely local. We have been considering the tides of an ocean completely to cover the earth. How may those be determined which happen in a small and confined sea, such as the Caspian or the Black Sea? The determination in this case is very simple. As no supply of water is supposed to come into the basin, it is susceptible of a tide only by sinking at one end and rising at the other. It is evident that there will be high water, or the greatest possible rise, when the basin comes to that position where the tangent is most of all inclined to the diameter, and therefore three lunar hours after the moon's southing; at the same time it will be low water at the other end. It is plain that the rise and fall must be exceedingly small, and that there will be no change in the middle. The tides of this kind in the Caspian Sea, in lat.  $45^\circ$ , whose extent in longitude does not exceed  $8^\circ$ , are not above seven inches; a quantity so small that a slight breeze of wind is sufficient to check it, and even to produce a rise of the waters in the opposite direction. We have not learnt that tides have been observed in this sea.

The tide should be much greater, though still very small, in the Mediterranean Sea. Accordingly, tides are observed there, but still more remarkably in the Adriatic. We do not know that tides have been observed in the great lakes of North America. These tides, though small, should be very regular. It would be low water on one side of the shore  $x$  when it is high water on the other side of this partition. If the tides in the Euxine and Caspian seas, or in the American lakes which are near each other, could be observed, this phenomenon would appear, and would be one of the prettiest examples of universal gravitation that can be conceived. Something like it is to be seen at Gibraltar. It is high water on the east side of the rock about ten o'clock at full and change, and it is high water on the west side, not a mile distant, at twelve. This difference is perhaps the chief cause of the singular current which is observed in the mouth of the Straits. There are three currents observed at the same time, which change their directions every twelve hours. The small tide of the Mediterranean proceeds along the Barbary shore, which is very uniform all the way from Egypt, with tolerable regularity. But along the north side, where it is greatly obstructed by Italy, the islands, and the east coast of Spain, it sets very irregularly; and the perceptible high water on the Spanish coast differs four hours from that on the south coast. Thus one tide ranges round Europa Point, and another along the shore near Ceuta, and there is a third current in the middle different from both. Its general direction is from the Atlantic Ocean into the Mediterranean Sea, but it sometimes comes out when the ebb tide in the Atlantic is considerable. Suppose the moon over the middle of the Mediterranean. The surface of the sea will be level, and it will be half tides at both ends, and therefore within the

**Straits of Gibratar** But without the Straits it is within half an hour of high water. Therefore there will be a current setting in from the Atlantic. About three hours and a half after, it is high water within, and half ebb without. The current now sets out from the Mediterranean: three hours later, it is low water without the Straits and half ebb within; therefore the current has been setting out all this time: three hours later, it is half flood without the Straits and low water within, and the current is again setting in, &c. Were the earth fluid to the centre, the only sensible motion of the waters would be up and down, like the waves on the open ocean, which are not brushed along by strong gales. But the shallowness of the channel makes a horizontal motion necessary, that water may be supplied to form the accumulation of the tide. When this is formed on a flat shelving coast, the water must flow in and out, on the flat and sands, while it rises and falls. These horizontal motions must be greatly modified by the channel or bed along which they move. When the channel contracts along the line of flowing water, the wave, as it moves up the channel, and is checked by the narrowing shores, must be reflected back, and keep a top of the waters still flowing in underneath. Thus it may rise higher in these narrow seas than in the open ocean. This may serve to explain a little the great tides which happen on some coasts, such as the coast of Normandy. At St. Malo the flood frequently rises fifty feet. But we cannot give any thing like a full or satisfactory account of these singularities. In the Bay of Fundy, and particularly at Annapolis Royal, the water sometimes rises above 100 feet. This seems quite inexplicable by any force of the sun and moon, which cannot raise the waters of the free ocean more than eight feet. These great floods are unquestionably owing to the proper timing of certain oscillations or currents adjoining, by which they unite, and form one of great force. Such violent motions of water are often seen on a small scale in the motions of brooks and rivers; but we are too little acquainted with hydraulics to explain them with any precision. We have seen that there is an oscillation of waters formed under the sun and moon, and that in consequence of the rotation of the earth, the inertia, and the want of perfect fluidity of the waters, and obstructions in the channel, this accumulation never reaches the place where it would finally settle if the earth did not turn round its axis. The consequence of this must be a general current of the waters from east to west. This may be seen in another way. The moon in her orbit round the earth has her gravity to the earth diminished by the sun's disturbing force, and therefore moves in an orbit less incurvated than she should describe independent of the sun's action. She therefore employs a longer time. If the moon were so near the earth as almost to touch it, the same thing would happen. Therefore, suppose the moon turning round the earth, almost in contact with the equator, with her natural undisturbed periodical time, and that the earth is revolving round its axis in the same time, the moon would remain continually above the same spot of the earth's surface (suppose the

city of Quito), and a spectator in another plane would see the moon always covering the same spot. Now let the sun act. This will not affect the rotation of the earth, because the action on one part is exactly balanced by the action on another. But it will affect the moon. It will move slower round the earth's centre, and at a greater distance. It will be left behind by the city of Quito, which it formerly covered. And as the earth moves round from west to east, the moon, moving more slowly, will have a motion to the west with respect to Quito. In like manner, every particle of water has its gravity diminished, and its diurnal motion retarded; and hence arises a general motion or current from east to west. This is very distinctly perceived in the Atlantic and Pacific oceans. It comes round the Cape of Good Hope, ranges along the coast of Africa, and then sets directly over to America, where it meets a similar stream which comes in by the north of Europe. Meeting the shores of America, it is deflected both to the south along the coast of Brasil, and to the north along the North American shores, where it forms what is called the Gulf Stream (see AMERICA), because it comes from the Gulf of Mexico. This motion is indeed very slow, this being sufficient for the accumulation of seven or eight feet on the deep ocean; but it is not altogether insensible. We may expect differences in the appearances on the west shores of Europe and Africa, and on the west coast of America, from the appearances on the east coasts of America and of Asia; for the general current obstructs the waters from the western shores, and sends them to the eastern shores. Also when we compare the wide opening of the northern extremity of the Atlantic Ocean with the narrow opening between Kamtschatka and America, we should expect differences between the appearances on the western coasts of Europe and America. The observations made during the circumnavigations of captain Cook and others show a remarkable difference. All along the western coast of North America the inferior tide is very trifling, and often is not perceived. In the very same manner, the disturbing forces of the sun and moon form a tide in the fluid air which surrounds this globe, consisting of an elevation and depression, which move gradually from east to west. Neither does this tide ever attain that position with respect to the disturbing planets which it would do were the earth at rest on its axis. Hence arises a motion of the whole air from east to west, and this is the principal cause of the trade winds. They are a little accelerated by being heated, and therefore expanding. They expand more to the west than to the east, because the air expands on that side into air which is now cooling and contracting. These winds very evidently follow the sun's motion, tending more to the south or north as he goes south or north. Were this motion considerably affected by the expansion of heated air, we should find the air rather coming northward and southward from the torrid zone, in consequence of its expansion in that climate. We repeat it, it is almost solely produced by the aerial tide, and is necessary for the very formation of this tide. We cannot perceive the accumulation. It cannot affect the ba-



rometer, as many think, because, though the air becomes deeper, it becomes deeper only because it is made lighter by the gravitation of the sun. Instead of pressing more on the cistern of the barometer, we imagine that it presses less; because, like the ocean, it never attains the height to which it tends. It remains always too low for equilibrium, and therefore it should press with less force on the cistern of a barometer. There is an appearance precisely similar to this in the planet Jupiter. He is surrounded by an atmosphere which is arranged in zones or belts, probably owing to climate differences of the different latitudes, by which each seems to have a different kind of sky. Something like this will appear to a spectator in the moon looking at this earth. The general weather and appearance of the sky is considerably different in the torrid and temperate zones. Jupiter's belts are not of a constant shape and color; but there often appear large spots or tracts of clouds, which retain their shape during several revolutions of Jupiter round his axis. To judge of his rotation by one of these, we should say that he turns round in 9:55. There is also a brighter spot which is frequently seen, occupying one certain situation on the body of Jupiter. This is surely adherent to his body, and is either a bright colored country, or perhaps a tract of clouds hovering over some volcano. This spot turns round in 9:51½. And thus there is a general current in his atmosphere from east to west. Both the motion of the air and of the water tend to diminish the rotation of the earth round its axis; for they move slower than the earth, because they are retarded by the luminaries. They must communicate this retardation to the earth, and must take from it a quantity of motion precisely equal to what they want, in order to make up the equilibrated tide. In all probability this retardation is compensated by other causes; for no retardation can be observed. This would have altered the length of the year since the time of Hipparchus, giving it a smaller number of days. We see causes of compensation. The continual washing down of soil from the elevated parts of the earth must produce this effect, by communicating to the valley on which it is brought to rest, the excess of diurnal velocity which it had on the mountain top.

**TIDEMAN** (Philip), an eminent painter born at Hamburg, in 1657. He studied under Leirresse, and painted subjects of allegory and fabulous history with great propriety. He died in 1705.

**TIDSWELL**, a market-town in High Peak hundred, Derby, five miles east by north from Buxton, and 160 N. N. W. of London. The town is but indifferently built, but the church is large and tolerably well constructed. It has also a free-school. The name of this town is derived from its ebbing and flowing well, reckoned one of the wonders of Derbyshire. Market on Wednesday. Fairs May 3d, October 18th, and first Wednesday in September.

**TIDI**, a river of England, in the county of Cornwall, which joins the Lynker.

**TIDINGS**, *n. s.* Sax. *trian*, to happen; Isl. *tíðendic*. News; an account of something that has happened; incidents related.

When her eyes she on the dwarf had set,  
And saw the signs that deadly tidings spake,  
She fell to ground for sorrowful regret. *Spenser*.  
I shall make my master glad with these tidings.  
*Shakespeare*.

They win

Great numbers of each nation to receive,  
With joy, the tidings brought from heaven. *Milton*.

Portius, thy looks speak somewhat of importance:  
What tidings dost thou bring? methinks I see  
Unusual gladness sparkling in thy eyes. *Addison*.

The messenger of these glad tidings, by whom this covenant of mercy was proposed and ratified, was the eternal Son of his bosom. *Rogers*.

**TIDORE**, one of the Molucca isles, about twenty-one miles in circumference, is three leagues south of Ternate. The people are principally Mahometans, and there are said to be twenty-five mosques on the island. This island was first visited by the Spaniards under Magellan, November 8th, 1521, who were kindly received, and obtained permission to build a factory. At that period cloves were plentiful here. After visiting the neighbouring islands, Matchian and Batchian, they returned to Europe. In 1527 the Portuguese succeeded in driving them from the island. In 1607 the Dutch arrived in these seas and soon managed to drive out the Portuguese, from which time till its capture by the English it had remained in their hands. The king possesses great part of the south-east portion of Gilolo, in which are three towns of some trade; viz. Patany, Maba, and Weda; he likewise claims the islands of Waygiou, Mysol, and Batana. There is a great trade here with New Guinea, Gilolo, and with the northern islands; and the Chinese are much interested in it. Long. 127° 25' E., lat. 0° 45' N.

**TIDY**, *adj.* Isl. *tíð*. Seasonable; neat; ready.

If weather be faire and *tíðe*, thy grain  
Make speedilie carriage, for fear of a raine. *Tusser*.  
Thou whoreson *tíðy* Bartholomew boar-pig, when wilt thou leave fighting? *Shakespeare*. *Henry IV*.  
Whenever by yon barley-mow I pass,  
Before my eyes will trip the *tidy* lass.

*Gay's Pastorals*.

**TIE**, *v. a. & n. s.* Sax. *trian*, *trigan*. To bind; fasten with a knot; knit; hold: hence to constrain; oblige; hinder; obstruct: a knot; fastening; obligation.

*Tie* the kine to the cart, and bring their calves home from them. *1 Samuel vi. 7*.

Although they profess they agree with us touching a prescript form of prayer to be used in the church, they have declared that it shall not be prescribed as a thing whereunto they will *tie* their ministers.

*Hooker*.

Thousands of men and women, *tied* together in chains, were, by the cruel Turks, enforced to run as fast as their horses. *Knoller's History*.

It is the cowlish terror of his spirit,  
That dares not undertake; he'll not feel wrongs  
Which *tie* him to an answer.

*Shakespeare*. *King Lear*.

The rebels, that had shaken off the great yoke of obedience, had likewise cast away the lesser *tie* of respect. *Bacon*.

In bond of virtuous love together *tied*,  
Together served they, and together died. *Fairfax*.  
No forest, cave, or savage den,  
Holds more pernicious beasts than men.

Vows, oaths, and contracts, they devise,

And tell us they are sacred *ties*.

Waller.

Cannot God make any of the appropriate acts of worship to become due only to himself? cannot he tie us to perform them to him?

Stillingsfleet.

Not tied to rules of policy, you find

Revenge less sweet than a forgiving mind.

Dryden.

No one seems less tied up to a form of words.

Locke.

The intermediate ideas tie the extremes so firmly together, and the probability is so clear, that assent necessarily follows it.

Id.

We do not tie this knot with an intention to puzzle the argument; but the harder it is tied, we shall feel the pleasure more sensibly when we come to loose it.

Burnet.

Honour and good-nature may tie up his hands; but, as these would be very much strengthened by reason and principle, so without them they are only instincts.

Addison.

They have no uneasy expectations of what is to come, but are ever tied down to the present moment.

Atterbury.

A healthy man ought not to tie himself up to strict rules, nor to abstain from any sort of food in common use.

Arbuthnot.

The well-sworn ties an equal homage claim,

And either shoulder has its share of fame.

Young.

TIEDEMANN (Dieteric), a modern German philosopher of eminence, was born April 3d, 1748, at Bremervorde, in Bremen, of which place his father was a burgomaster. He was intended for the study of divinity, but early gave the preference to a more general pursuit of science and literature. In 1772 he published his Essay on the Origin of Languages, (Riga) and in 1776 his System of the Stoic Philosophy. This work, much admired by the celebrated Heyne, procured him the professorships of the Greek and Latin languages in the Collegium Carolinum at Cassel. In 1786 he published his Investigation of Man, 3 vols. 8vo., and in 1780 The First Philosopher of Greece. In 1786 he was removed with the other teachers of the college to Marpurg, and appointed professor of philosophy, in which capacity he sustained a high reputation. His latest performance was a translation of Dehon's Travels in Egypt. He died May 24th, 1803, in the fifty-fifth year of his age. Besides the works already enumerated he was also author of a work entitled The Spirit of Speculative Philosophy.

TIER, *n. s.* Old Fr. *tiere*, *tiere*; Ital. *tiro*; Belg. *tuyer*. A row; rank.

Fornovius, in his choler, discharged a tier of great ordnance amongst the thickest of them.

Knolles.

TIERCE, *n. s.* Fr. *tiers*, *tiercier*. A vessel holding the third part of a pipe.

Go now deny his tierces.

Ben Jonson.

Wit, like tierce claret, when 't begins to pall,

Neglected lies, and 's of no use at all;

But in its full perfection of decay

Turns vinegar, and comes again in play.

Dorset.

TIERNEY (George), son of a merchant of London, born in 1761, was educated at Cambridge, and designed for the bar, to which he was called. His father had some connexion with the East India company; and the first publication of Mr. Tierney (1787) was the Real Situation of the East India Company. Mr. Tierney now engaged in political life, and was

sent down by a noble duke as candidate for Colchester, when he stood a severe contest at a great expense, which his patron refused to pay. The loss therefore fell heavily on Tierney. In 1796, he was nominated by the popular party to oppose Mr. Thellous, for the borough of Southwark; and, although defeated on the poll, yet, on a petition to the house of commons, he removed his opponent by the Treating Act; and, on the next return, as his competitor was legally disqualified, Mr. Tierney was declared duly elected. As soon as he was in the house, he entered warmly into the measures of the whigs. He soon proved himself an able speaker, and long ranked as one of the first in the house. During a debate in the year 1798, some words spoken in the house were the occasion of a duel between him and Mr. Pitt, in which, however, neither party was wounded. When Mr. Addington became minister, in 1802, he made Mr. Tierney treasurer of the navy. In 1806, under the Grenville administration, Mr. Tierney was made president of the board of control, but went out of office early in the following year, on the resignation of the ministry. He then lost his seat for Southwark, but afterwards sat for different places; in 1806 for Athlone, in 1809 for Bandon Bridge, in 1813 for Appleby, and in 1818, 1820 and 1826, he represented the proprietor of Knaresborough. In 1827, Mr. Canning invited him to the mastership of the mint, from which he retired, with lord Goderich, in 1828. His death took place Jan. 23, 1830.

TIFERNUM, three ancient towns of Italy: 1. called also Metaurens, near the Metaurus, in Umbria: 2. called Samniticum, in the country of the Samnites: and 3. called Tiberinum, seated on the Tiber. Liv. x. c. 14. Plin. iii. 14.

TIFERNUS, a mountain and river of Italy, in the country of the ancient Samnites. Liv. x. c. 30. Mela ii. c. 4.

TIFF, *n. s.* A low word, I suppose, without etymology.—Johnson. Liquor; drink; a pet.

TIFTANY, *n. s.* Old Fr. *tiffer*, to dress up.—Skinner. Very thin silk.

TIGELLINUS, a Roman courtier, infamous for his intrigues at the court of Nero, who promoted him to the highest honors; but being at last detected in a conspiracy against Nero, he was ordered to kill himself, A.D. 68. Tac. Hist. i. 72.

TIGELLIUS, a Sardinian, who became a favorite of Julius Cæsar, Antony, and Cleopatra, by his buffoonery, mimicry, and fine voice; but Horace represents him as a despicable character. 1 Sat. ii. 3, &c.

TIGER, *n. s.* Fr. *tigre*; Lat. *tigris*. A fierce beast of the leonine kind.

TIGHT, *adj.*

Sax. *richt*; Belg. *dicht*.

TIGHTEN, *v. a.*

Tense; close; not loose:

TIGHTLY, *adv.*

hence neat: to tighten is

TIGHTNESS, *n. s.*

to make strait or tight:

the adverb and noun substantive agree with the adjective.

Every joint was well grooved; and the door did not move on hinges, but up and down like a sash, which kept my closet so tight that very little water came in.

Sweet



**TIGRAMMANES**, an ancient name of the Phrygians. See **PHRYGIA**.

**TIGRANES I.**, a famous king of Armenia, who conquered Cappadocia and Syria, and reigned for some years in prosperity; but having afterwards married Cleopatra, a daughter of Mithridates VII. king of Pontus, he joined him against the Romans and beheaded a Roman ambassador; but was soon after obliged to fly from his dominions by Lucullus, who pursued and defeated him near mount Taurus. He was afterwards defeated by Pompey, who, however, allowed him to retain Armenia, Syria, and some other parts of his dominions, for a bribe of 60,000 talents. He died in Armenia.

**TIGRANES II.**, a son of the preceding, revolted against his father and fled to the Romans who made him king of Stophene, but having afterwards insulted Pompey he was sent in chains to Rome where he died. This was also the name of other four kings of the same family.

**TIGRANOCERTA**, the capital of ancient Armenia, built by Tigranes I. during the Mithridatic war, on a hill between the sources of the Tigris and mount Taurus. Lucullus took it not without difficulty, but found immense riches in it, particularly 8000 talents in money. Tac. Ann. v. 15, c. 4.

**TIGRE**, an extensive province of Abyssinia, which has communicated its name to almost all the north-eastern districts of that country. It is chiefly composed of very steep and lofty mountains, interspersed with fertile valleys and extensive plains. The Tacazze in general forms its western boundary, while on the east it reaches in part to the sea, whence, however, it is separated by a salt and sandy plain, traversed by several tribes of Arabs. This province contains Masuah, the port by which all the foreign trade of Abyssinia is carried on. Of late, since Amhara and Gondar have fallen into the possession of the Galla, the authority of the original sovereigns of Abyssinia is almost confined to Tigre. Adowa is the capital.

**TIGRIS** (Persic, *tur*, an arrow, from the rapidity of its course), a large and celebrated river of Western Asia, flowing along the frontier of the Turkish and Persian empires; rises in the mountains of Armenia, about fifty miles to the north of Diarbekir, and fifteen to the east of the Euphrates. These two great rivers then separate, and flowing parallel to each other, but at a considerable distance, enclose the province of Algesira. At Bagdad they approach within less than thirty miles, but again separate, forming the rich district of Irak Arabi. This river, famed in antiquity for the many great cities built upon its banks, can boast, in modern times, of Bagdad, with the secondary names of Mosul and Diarbekir. Above Bagdad it is navigable only for very small vessels.

**TIGRIS**, in zoology. See **FELIS**.

**TIGURINI**, an ancient warlike nation of Helvetia who inhabited the countries or cantons now called Switz, Zurich, Schaffhausen, and St. Gall. Cæs. de B. Gall. Their capital was Tigurum.

**TIKE**, *n. s.* Fr. *tique*; Swed. *tik*. The louse of dogs or sheep. See **TICK**.

Avant, you curs!

Hound or spaniel, brache or lym,  
Or bobtail *tike*, or trundle tail.

*Shakspeare. King Lear.*

Lice and *tikes* are bred by the sweat close kept,  
and somewhat arefied by the hair.

*Bacon's Natural History.*

**TILBURY**, East, a parish in Barnstable hundred, Essex, near the Thames, and in the marshes of that angle of land formed by the winding of the Thames from the Hope to Gravesend Reach. It is three miles from Grays-Thurrock, and twenty-eight east by south of London; containing thirty-five houses and 254 inhabitants. Several caverns of great magnitude are here dug in the cliffs. The fort is situate close to the banks of the Thames, opposite Gravesend. It is a regular fortification, built by Henry VIII. as a block-house. The esplanade is large, and the bastions the largest in England; they are faced with brick, and are surrounded with a double ditch or moat, the innermost being 180 feet broad, and has a good counterscarp. On the landside are two small redoubts; but the chief strength of this fort on the land side is its being able to lay the whole level under water. On the side next the river is a strong curtain, having a gate in the middle called the Water-gate, and the ditch pallisaded. At the place intended for the water bastion, and which by the plan should have run out into the river so as to command both the curtains, stands a high tower, erected by queen Elizabeth, called the Block-house. Before this curtain is a platform instead of a counterscarp, mounted, in time of war, with 106 cannons, from twenty-four to forty-six pounders, besides which there are smaller pieces placed between them and the bastions and curtains; the interior of the fort contains all the necessary apartments for the garrison: but it is chiefly used as a dépôt for recruits.

**TILBURY**, WEST, is a parish adjoining the above, where are some remains of queen Elizabeth's camp, formed here in 1588.

**TILE**, *n. s. & v. a.* } Sax. *tile*; Belg. *tegel*;

**TILER**, *n. s.* } French *tuile*; Ital. *tegola*.

**TILING**. } Thin plates of baked clay

used to cover houses: to cover with tiles: the tiler is he whose trade it is: tiling, the covering so made.

They went upon the house-top, and let him down through the tiling with his couch before Jesus.

*Luke v. 19.*

Moss groweth chiefly upon ridges of houses tiled or thatched.

*Bacon's Natural History.*

A Flemish tiler, falling from the top of a house upon a Spaniard, killed him; the next of the blood prosecuted his death; and, when he was offered pecuniary recompense, nothing would serve him but *lex talionis*: whereupon the judge said to him, he should go up to the top of the house, and then fall down upon the tiler.

*Id. Apophthegms.*

The rafters of my body, bone,

Being still with you, the muscle, sinew, and vein,  
Which *tile* this house, will come again. *Donne.*

In at the window he climbs, or o'er the tiles.

*Milton.*

Worse than all the clattering tiles, and worse  
Than thousand padders, was the poet's curse.

*Dryden.*

*Tile* pins made of oak, or fir, they drive into holes made in the plain *tiles*, to hang them upon their lathing.

*Moxon.*

Sonnets or elegies to Chloris

Might raise a house above two stories ;

A lyric ode would slate ; a catch

Would *tile* ; an epigram would thatch.

*Swift's Miscellanies.*

**TILIA**, lime or linden tree, in botany, a genus of plants belonging to the class of polyandria and order of monogynia; and in the natural system ranging under the columniferae. The calyx is quinquepartite; the corolla pentapetalous; the berry is dry, globose, quincelocular, quinquevalve, and opening at the base. There are four species; viz. 1. *T. Alba*, the white lime tree. 2. *T. Americana*, the American linden tree, grows plentifully in America. 3. *T. Europæa*, the European or common lime tree, is generally supposed to be a native of Britain; but Mr. Coxe says that Mr. Pennant told him that it was imported into England before 1652. The leaves are heart-shaped, with the apex produced, and serrated on the edges; the flowers grow in a thin umbel, from three to nine together, of a whitish color and a fragrant smell, very grateful to bees. The wood is light, smooth, and of a spongy texture, used for making lasts and tables for shoemakers, &c. Ropes and bandages are made of the bark, and mats and rustic garments of the inner rind, in Carniola and some other countries. The lime tree contains a gummy juice, which being repeatedly boiled and clarified produces a substance like sugar. 4. *T. purescens*.

**TILL**, *n. s.* Sax. *ðil*. A money-box in a shop.

They break up counters, doors, and *tills*,

And leave the empty chests in view.

*Swift.*

**TILL**, *prep. & conj.* Sax. *til*. To the time of: to the time when; to the degree that.

Meditate so long *till* you make some act of prayer to God, or glorification of him.

*Taylor.*

To this strange pitch their high assertions flew,  
*Till* Nature's self scarce looked on them as two.

*Cowley.*

Unhappy slave, and pupil to a bell,

Unhappy *till* the last, the kind releasing knell.

*Id.*

Pleasure not known *till* now.

*Milton.*

Woods and rocks had ears

To rapture, *till* the savage clamour drowned

Both harp and voice.

*Id.*

The unity of place we neither find in Aristotle, Horace, or any who have written of it, *till* in our age the French poets first made it a precept of the stage.

*Dryden.*

Goddess, spread thy reign *till* Isis' elders reel.

*Pope.*

**TILL**, *v. a.*

**TILL**ABLE, *adj.*

**TILL**AGE, *n. s.*

**TILL**ER,

**TILL**MAN,

**TILT**, *adj. & n. s.*

Sax. *tyhan*; Goth. *til*.

*toil*. To cultivate; hus-

band: commonly used of

the husbandry of the

plough: the derivatives

corresponding.

Abel was a keeper of sheep, but Cain was a *tiller* of the ground.

*Genesis iv. 2.*

Good shepherd, good *tilman*, good Jack, a id good Gil,

Makes husband and buswife their coffers to fill

*Turner.*

Bourn, bound of land, *tillth*, vineyard, none ;  
No use of metal, corn, or wine, or oil.

*Shakespeare. Tempe.*

Her plenteous womb

Expresseth its full *tillth* and husbandry.

Give the fallow lands their seasons and their

*tillth.*

*Drayton.*

*Tillage* will enable the kingdom for corn for the natives, and to spare for exportation.

*Bacon.*

The *tillable* fields are so hilly that the oxen can hardly take sure footing.

*Carew's Survey of Cornwall.*

They bring in sea-sand partly after their nearness to the places, and partly by the good husbandry of the *tiller*.

*Carew.*

Send him from the garden forth, to *till*

The ground whence he was taken.

*Milton's Paradise Lost.*

Incite them to improve the *tillage* of their country, to recover the bad soil, and to remedy the waste.

*Milton.*

He beheld a field,

Part arable and *tillth* ; whereon were sheaves

New reaped.

*Id. Paradise Lost.*

Bid the laborious hind,

Whose hardened hands did lounge in *tillage* toil,

Neglect the promised harvest of the soil.

*Dryden.*

Search her cabinet, and thou shalt find

Each *tiller* there with love epistles lined.

*Id. Juvenal.*

The worm that gnaws the ripening fruit, sad guest !

Canker or locust hurtful to infest

The blade : while husks elude the *tiller's* care,

And eminence of want distinguishes the year.

*Prior.*

That there was *tillage*, Moses intimates ; but whether bestowed on all, or only upon some parts of that earth, as also what sort of *tillage* that was, is not expressed.

*Woodward.*

The husbandman *tilleth* the ground, is employed in an honest business that is necessary in life, and very capable of being made an acceptable service unto God.

*Law.*

**TILLÆA**, in botany, a genus of plants belonging to the class of tetrandria, the order of tetragynia, and in the natural system ranging under the thirteenth order, succulentæ. The calyx has three or four divisions; the petals are three or four, and equal; the capsules three or four, and polyspermous. There are four species, of which one only, *T. muscosa*, or procumbent *tillæa*, is a native of England, and is not mentioned among the Scottish plants. It has prostrate stems, almost erect, generally red, and grow longer after flowering. The parts of fructification are always three. The leaves grow in pairs and are fleshy. It is found on dry heaths in Norfolk and Suffolk, and flowers in May and June.

**TILLANDSIA**, the large barren wild pine of the West Indies, a genus of the monogynia order, belonging to the hexandria class of plants. It is called *caragatua* by father Plumier; and is a parasitic plant, and ought perhaps, in strict propriety, to be denominated an aquatic.

**TILLEMANS** (Peter), a celebrated landscape painter, born at Antwerp. He came to England in 1708, and was much employed by the nobility and gentry. He died in 1734.

**TILLER OF A SHIP**, a strong piece of wood fastened in the head of the rudder, and in small ships and boats called the helm.



**TILLI** (John) count of, an illustrious general born at Brussels and educated under the jesuits. He displayed great courage in Hungary in a battle with the Turks; and, in 1620, commanded the troops under duke Maximilian at the battle of Prague. He showed equal skill and humanity in the various German wars that followed; but was at last defeated by Gustavus Adolphus, and mortally wounded in defending the passage of the Lech. He died at Ingoldstadt in 1652.

**TILLI** (Michael Angelo), F. R. S., a learned physician and botanist, born at Florence in 1655 and educated at Pisa. He was made physician to the grand duke, professor of medicine in the university of Pisa, superintendent of the botanic garden, and F. R. S. of London. His chief work is *Catalogus Horti Pisani*, in fol. 1723. He died at Florence in 1740, aged eighty-five.

**TILLOCH** (Alexander), LL.D., was the son of a tobaccoist of Glasgow, who filled one of the municipal magistracies in that city, where his son was born February 28th, 1759. He was intended by his father to follow his own business, but a strong bias towards mechanical and scientific pursuits soon diverted his attention from commercial pursuits. In 1736 a jeweller of Edinburgh, named Ged, having, though unacquainted with the tradition respecting Vander Mey, devised the art of printing from plates, and actually produced an edition of Sallust so printed, it was reserved, however, for Dr. Tilloch to revive and bring it an important step forward. See **PRINTING**. In 1787 Dr. Tilloch came to London, and two years afterwards purchased a principal share of the *Star* evening paper, which he continued to edit till within four years of his death. In 1797 the public attention being then directed to schemes for the prevention of forgery, he submitted to the Bank of England a plan respecting which he had been previously in communication with the French government, for producing a note beyond the reach of imitation: this proposal was declined, and in 1820 Dr. Tilloch petitioned parliament on the subject, but without any practical result. In June 1797 he projected and established the *Philosophical Magazine*; and only fifteen days before his death he had obtained a patent for an improvement on the steam-engine. Amidst his other avocations he also found leisure to apply himself to theological studies, the fruits of which appeared in a *Dissertation on the Apocalypse*, published in 1823, besides a variety of detached essays collected under the title *Biblicus*. The last work which he was engaged to superintend was the *Mechanics' Oracle*, published in numbers at the Caxton press. In his religious opinions Dr. Tilloch was a dissenter from the established church, and preached to a congregation who assembled in the Curtain Road. His death took place at his house in Barnsbury Street, Islington, January 26th, 1825.

**TILLOTSON** (John), a celebrated archbishop of Canterbury, the son of Robert Tillotson of Sowerby, in Halifax, Yorkshire, clothier; was born there in 1630. He studied in Clare Hall, Cambridge; and in 1656 became tutor to the son of Edmund Prideaux, esq., of Ford Abbey. He was next curate to Dr. Hacket, vicar of Ches-

hunt, Hertfordshire. In 1663 he was appointed rector of Ketton in Suffolk; in 1664 preacher to Lincoln's Inn. He was greatly admired in London by all the divines of the city. In 1666 he took the degree of D. D. at Cambridge; in 1669 was made prebendary of Canterbury; in 1672 was admitted dean of that cathedral; and three years after was made a prebendary of St. Paul's, London. In 1679 he converted Charles earl of Shrewsbury from popery; yet, in 1670, he refused to sign the clergy's address to Charles II. on the bill of exclusion. In 1689 he was installed dean of St. Paul's; made clerk of the closet to William and Mary; and appointed a commissioner to prepare matters to be laid before the convocation, for a comprehension of all Protestants; but this attempt was frustrated by the bigotry of some members. In 1691 he was consecrated archbishop of Canterbury. In 1694 he was seized with a palsy, of which he died in his sixty-fifth year. One folio volume of his sermons was published in his life time. Those which came abroad after his death, from his chaplain Dr. Barker, made two volumes in folio, the copy of which was sold for £2500, and this was the only legacy he left to his family, his extensive charity having consumed his yearly revenues as constantly as they came in. But king William gave two grants to his widow, amounting to £600 a year. He wrote some other works, and also published Dr. Barrow's works, and Dr. Wilkin's *Treatise on the Principles and Duties of Natural Religion*, with a volume of Sermons.

**TILLYFALLY**, *adv.* } A trifling word, used  
**TILLYVALLEY**. } formerly when any  
thing said was rejected as impertinent.

Am not I consanguineous? am not I of her blood?  
*tilleyvalley*, lady. *Shakspeare. Twelfth Night.*

*Tilleyfally*, Sir John, never tell me; your ancient  
swaggerer comes not in my doors. *Id. Henry IV.*

**TILSIT**, a handsome town of Prussian Lithuania, fifty-six miles E. N. E. of Konigsberg. It stands on the banks of the Tilse, a small stream separating the town from the castle, and the Nieman, a great river which flows past the town by the north, and over which it has a bridge of boats. The chief articles of trade are corn, wax, salt, salted provisions, hats, and leather. The town gives name to a district which extends from it to the great maritime inlet of the Curische-Haff, a level and fertile tract, noted for its exports of barley, butter, and cheese. The castle is said to have been built in 1289, though the place received the title of town only in 1552. Its chief title to historical notice is from the treaty of peace concluded here on July 1st, 1807, between France and Prussia, a treaty which threw the whole weight of Russian influence during several years into the scale of Buonaparte. Inhabitants 9000. Fifty miles S. S. E. of Memel. Long. 21° 56' 15" E., lat. 55° 4' 30" N.

**TILT**, *n. s., v. a., & v. n.* } Sax. *tylþ*. A tent;  
**TILT**, *n. s.* } any support of cover-

ing over head; a boat's covering; a military game in a place often surrounded with tents and enclosed: hence a thrust; inclination forward: to tilt is to cover, as with awning; to point as in the above game; to thrust; to run in tilts; rush

as in combat ; fall on one side : a tilter is one who tilts.

It is a small vessel, like in proportion to a Gravesend tilt-boat. *Sandys.*

Images representing the forms of Hercules, Apollo, and Diana, he placed in the tilt-yard at Constantinople. *Knolles.*

His study is his tilt-yard, and his loves  
Are brazen images of canonized saints.

*Shakspeare. Henry IV.*

A puisny tilter, that spurs his horse on one side,  
breaks his staff like a noble goose.

*Id. As You Like It.*

Friends all bût even now ; and then, but now—  
Swords out and tilting one at other's breasts,  
In opposition bloody. *Id. Othello.*

The roof of linnen  
Intended for a shelter !  
But the rain made an ass

Of tilt and canvass,

And the snow which you know is a melter.

*Denham.*

The floating vessel swam  
Uplifted ; and secure with beaked prow  
Rode tilting o'er the waves. *Milton's Paradise Lost.*

He used the only antique philters,  
Derived from old heroick tilters. *Hudibras.*

Scowering the watch grows out-of-fashion wit :  
Now we set up for tilting in the pit,  
Where 'tis agreed by bullies, chicken-heared,  
To fright the ladies first, and then be parted.

*Dryden.*

The spousals of Hippolite the queen,  
What tilts and tourneys at the feast were seen. *Id.*

Ajax interposed

His sevenfold shield, and screened Laertes' son,  
When the insulting Trojans urged him sore  
With tilted spears. *Philips.*

Now horrid slaughter reigns :

Sons against fathers tilt the fatal lance,  
Careless of duty, and their native grounds  
Distain with kindred blood. *Id.*

As the trunk of the body is kept from tilting forward  
by the muscles of the back, so from falling  
backward by those of the belly. *Grew's Cosmologia.*

His majesty seldom dismissed the foreigner till he  
had entertained him with the slaughter of two or  
three of his liege subjects, whom he very dextrously  
put to death with the tilt of his lance.

*Addison's Freeholder.*

In tilts and tournaments the valiant strove

By glorious deeds to purchase Emma's love. *Prior.*  
Some say the spirits tilt so violently that they  
make holes where they strike. *Collier.*

The rowing crew,

To tempt a fare, clothe all their tilts in blue. *Gay.*  
If war you chuse, and blood must needs be spill  
here,

Let me alone to match your tilter. *Granville.*

Satire's my weapon, but I'm too discreet

To run a muck, and tilt at all I meet. *Pope.*

The fleet swift tilting o'er the surges flew,  
Till Grecian cliffs appeared. *Id. Odyssey.*

TIMÆA, the wife of Agis I. king of Sparta,  
who was debauched by Alcibiades, by whom she  
had a son ; who was rejected from the succession  
to the throne, although Agis declared him legiti-  
mate on his death-bed. *Plut. in Ag.*

TIMÆUS, the son of Andromachus, an an-  
cient historian of Sicily, born at Taurominium,  
who flourished about A. A. C. 262, in the time  
of Agathocles. He wrote a history of Sicily, and  
of the wars of Pyrrhus, and other works, which

were much esteemed, but his works are lost. He  
was banished by Agathocles ; and died aged  
ninety-six.

TIMÆUS, a famous Pythagorean philosopher,  
was born at Locris in Italy, and lived before  
Plato. There is still extant a small treatise of his  
on Nature and the Soul of the world, written in  
the Doric dialect.

TIMÆUS, a Greek sophist and lexicographer,  
who wrote *Lexicon vocum Platoniarum*.

TIMAGENES, a Greek historian of Alex-  
andria, who flourished about A. A. C. 54. He was  
brought to Rome by Gabinius, and sold as a  
slave to Sylla's son. His abilities procured him  
his liberty, and gained the favor of Augustus,  
which he returned by impertinence ; on which  
the emperor dismissed him ; and he in revenge  
burnt the admired history he had written of his  
reign. *Plut.*

TIMANTHES, a famous painter of Sicily,  
who lived in the reign of Philip II. of Macedon.  
His painting of the sacrifice of Iphigenia was  
much and justly admired, wherein he represented  
all the spectators in extreme grief, but covered  
the face of Agamemnon, as esteeming the father's  
grief impossible to be expressed by the pencil.  
This painting carried off the prize from Parrha-  
sius. His Ajax enraged for the loss of Achilles's  
arms was also much admired.

TIMBER, *n. s., v. n., & v. a.* } Sax. *tymbrian*,  
TIMBERED, *adj.* } to build. *Wood*

TIMBERSOW, *n. s.* } fit for building ;  
the main trunk of a tree ; materials : to light on  
a tree : to furnish with timber : timbered is  
built ; contrived : timbersow, a kind of wood-  
louse or worm.

I learned of lighter timber cotes to frame,  
Such as might save my sleep and me from shame.

*Spenser.*

We take

From every tree, lop, bark, and part o' the *timber* ;  
And, though we leave it with a root thus hack't,  
The air will drink the sap. *Shakspeare.*

Such dispositions are the very errors of human  
nature ; and yet they are the fittest *timber* to make  
politics of, like to knee *timber*, that is good for ships  
to be tossed, but not for houses that shall stand firm.

*Bacon.*

Divers creatures, though they be loathsome to take,  
are of this kind ; as earth-worms, *timbersows*, snails.

*Id.*

He left the succession to his second son ; not be-  
cause he thought him the best *timbered* to support it.

*Wotton.*

Many heads that undertake learning were never  
squared nor *timbered* for it.

*Browne's Vulgar Errors.*

The straw was laid below,

Of chips and serewood was the second row ;  
The third of greens, and *timber* newly felled.

*Dryden.*

The one took up in a thicket of brush-wood, and  
the other *timbered* upon a tree hard by. *L'Estrange.*

Upon these walls they plant quick and *timber*  
trees, which thrive exceedingly.

*Mortimer's Husbandry.*

Who set the twigs, shall he remember,

That is in haste to sell the *timber* ?

And what shall of thy woods remain,

Except the box that threw the main ? *Prior.*

There are hardly any countries that are destitute  
of *timber* of their own growth. *Woodward.*



**TIMBER-MEASURING.** To find the superficial content of a plank, multiply the length by the breadth, and the product will be the required content.

*Example.*—The content of a board whose length is 5 ft. 7 in. and breadth 1 ft. 10 in., is in decimals, 10 ft. 2' 10".

To find the solid content of squared timber, multiply the mean breadth by the mean thickness, and the product again by the length, and the result will be the solidity required.

*Example.*—The length of a piece of timber is 20·38 feet, and the ends unequal squares, the side of the greater of which is 19½ inches, and that of the less 9½ inches, what is the solidity?

$$20\cdot38 \times \frac{29}{2} \times \frac{29}{2} \times \frac{1}{164} = 29\cdot756. \text{ Ans.}$$

*Note.*—If the tree tapers regularly from one end to the other, the breadth and thickness taken in the middle will be the mean breadth and thickness; but, if it does not taper regularly, let several dimensions be taken, and their sum, divided by the number of them, will give the mean dimensions.

This is the method generally used in practice, but in many cases it gives very erroneous results.

The true method of finding the solidity is this: to the sum of the areas of the two ends, add four times the area of the middle section between them, and the sum multiplied by one-sixth of the length will give the solidity.

Thus, in the last example, the true solidity is  $\left(\frac{153^2}{96} + \frac{79^2}{96} + 4 \cdot \frac{29^2}{24}\right) \times \frac{20\cdot38}{6} = 30\cdot76$  feet.

To find the solidity of round timber, multiply the square of one-fifth of the girt by double the length, and the product will be the solidity nearly.

*Example.*—The solidity of a round tree whose mean girt is eight feet, and length twenty-four feet, is  $\frac{8}{5} \times \frac{8}{5} \times \frac{48}{1} = 123$  feet nearly.

If  $c$  = the circumference, and  $l$  = the length, then by this rule  $\frac{c^2 l}{12\cdot5}$  = the content of the tree, whereas its content computed as a cylinder is  $\frac{c^2 l}{12\cdot5664}$ , which differs from  $\frac{c^2 l}{12\cdot5}$  by only about  $\frac{1}{190}$  part of the whole, and the rule is therefore sufficiently exact for practice.

Ordinary measurers generally multiply the square of the greater girt by the length for the solidity; but this rule is so erroneous (giving the result too small by about one-tenth or one-twelfth of the girt, but for elm, beech, &c., whose bark is thinner, the deduction ought to be less. Branches whose girt is less than two feet are cut off, they not being accounted timber.

When trees have bark on, an allowance is generally made by deducting from the girt what is judged sufficient to reduce it to such a circumference as it would have without its bark. In oak this allowance is about one-tenth or one-twelfth of the girt, but for elm, beech, &c., whose bark is thinner, the deduction ought to be less. Branches whose girt is less than two feet are cut off, they not being accounted timber.

**TIMBREL**, *n. s.* Fr. *timbré*; Lat. *tympanum*. A kind of musical instrument played by pulsation.

The damsels they delight  
When they their timbrels smite,  
And thereunto dance and carrol sweet.

*Spenser's Epithal.*

Praise with timbrels, organs, flutes;  
Praise with violins and lutes. *Sundry's Paraphrase.*  
For her, through Egypt's fruitful clime renowned,  
Let weeping Nilus hear the timbrel sound.

*Pope's Statius.*

|                                 |   |
|---------------------------------|---|
| TIME, <i>n. s. &amp; v. a.</i>  | } Sax. <i>tima</i> ; Erse. <i>tym</i> .<br>The measure of duration; interval; season; life; age; opportunity; particular time; musical measure: to adapt to the time; regulate as to time, musically or otherwise: timeful is seasonable; early: timeless, unseasonable; untimely: timely, seasonable; soon; early: timeserving, base compliance with present interest: timeserver, he who so complies; timepleaser, one who complies with the passing times. |
| TIME'FUL, <i>adj.</i>           |   |
| TIME'LESS,                      |   |
| TIME'LY, <i>adj. &amp; adv.</i> |   |
| TIME'PLEASER, <i>n. s.</i>      |   |
| TIME'SERVER,                    |   |
| TIME'SERVING,                   |   |
| TIM'OUS, <i>adj.</i>            |   |

When that company died, what time the fire devoured two hundred and fifty men. *Numbers.*

They were cut down out of time, whose foundation was overflowed with a flood. *Job xxii. 16.*

To every thing there is a season, and a time to every purpose. *Ecclesi. iii. 1.*

Daniel desired that he would give him time, and that he would shew him the interpretation.

*Daniel ii. 16.*

They shall be given into his hand until a time and times. *Id. vii. 25.*

He found nothing but leaves on it; for the time of figs was not yet. *Mark xi. 13.*

Knowing the time, that it is high time to awake out of sleep. *Romans xiii. 11.*

Comets, importing change of times and states, Brandish your crystal tresses in the sky. *Shakespeare.*

He was a thing of blood, whose every motion Was timed with dying cries. *Id.*

A pack of sorrows, which would press you down, If unprevailed, to your timeless grave. *Id.*

Come what come may,

Time and the hour runs through the roughest day.

*Shakespeare.*

Scandal, the supplicants for the people, call them. *Timepleasers*, flatterers, foes to nobleness. *Id.*

The beds i' the east are soft, and thanks to you, That called me *timelier* than my purpose hither. *Id.*

Happy were I in my *timely* death, Could all my travels warrant me they live. *Id.*

If this arch politician find in his pupils any remorse, any feeling of God's future judgments, he persuades them that God hath so great need of souls that he will accept them at any time, and upon any condition; interrupting, by his vigilant endeavours, all offer of *timeful* return towards God.

*Raleigh.*

By a wise and *timous* inquisition, the peccant humours and humourists must be discovered, purged, or cut off. *Bacon.*

Pomanders, and knots of powders, you may have continually in your hand; whereas perfumes you can take but at times. *Id. Natural History.*

There is no greater wisdom than well to time the beginnings and onsets of things. *Bacon.*

If a law be enacted to continue for a certain time, when that time is elapsed, the law ceaseth without any farther abrogation. *White.*

It is hard to believe that where his most numerous miracles were afforded, they should all want the ad,

vantage of the congruous *timings*, to give them their due weight and efficacy. *Hammond.*

Many *times* I have read of the like attempts begun, but never of any finished. *Heylin.*

On their exalted wings,  
To the celestial orbs they climb,  
And with the harmonious spheres keep *time*. *Denham.*

The earl lost no *time*, but marched day and night. *Clarendon.*

She intended to stay till delivered; for she was within one month of her *time*. *Id.*

All the prophets in their age, the *times*  
Of great Messiah sing. *Milton.*

Lest heat should hinder us, his *timely* care  
Hath unbesought provided. *Id.*

The worst on me must light, when *time* shall be. *Id.*

Four *times* he crossed the car of night. *Id.*  
Nor will polished amber, although it send forth a gross exhalation, be found a long *time* defective upon the exactest scale. *Browne's Vulgar Errors.*

A great devourer of his *time* was his agency for men of quality. *Fell.*

You, by the help of tune and *time*,  
Can make that song which was but rhyme. *Waller.*

This 'tis to have a virtue out of season:  
Mercy is good, but kings mistake its *timing*. *Dryden.*

The way to please being to imitate nature, the poets and the painters, in ancient *times*, and in the best ages, have studied her. *Id. Dufresnoy.*

I'll to my charge,  
And show my duty by my *timely* care. *Dryden.*

A *time* will come, when my maturer muse  
In Cæsar's wars a nobler theme shall chuse. *Id.*

Short were her marriage joys; for in the prime  
Of youth her lord expired before his *time*. *Id.*

The *timing* of things is a main point in the dispatch of all affairs. *L'Estrange.*

In *time* the mind reflects on its own operations about the ideas got by sensation, and thereby stores itself with a new set of ideas, ideas of reflection. *Locke.*

*Time* is one thing, and infinite duration is another. *Grew.*

If any reply, that the times and manners of men will not bear such a practice, that is an answer from the mouth of a professed *time-server*. *South.*

If such, by trimming and *timeserving*, which are but two words for the same thing, abandon the church of England, this will produce confusion. *Id.*

To the same purpose old Epopeus spoke,  
Who overlooked the oars, and *timed* the stroke. *Addison.*

These reservoirs of snow they cut, distributing them to several shops, that from *time* to *time* supply Napes. *Id.*

Heroes who overcome, or die,  
Have their hearts hung extremely high;  
The strings of which in battle's heat  
Against their very corselets beat;  
Keep *time* with their own trumpet's measure,  
And yield them most excessive pleasure. *Prior.*

*Timely* advised, the coming evil shun;  
Better not do the deed, than weep it done. *Id.*

I would ask any man that means to repent at his death, how he knows he shall have an hour's *time* for it. *Duty of Man.*

If they acknowledge repentance and a more strict obedience to be one *time* or other necessary, they imagine it is *time* enough yet to set about these duties. *Rogers.*

One imagines that the terrestrial matter which is showered along with rain enlarges the bulk of the

earth, and that it will in *time* bury all things under ground. *Woodward.*

The *time* will come when we shall be forced to bring our evil ways to remembrance, and then consideration will do us little good. *Calamy's Sermons.*

Every single particle would have a sphere of void space around it many hundred thousand million million *times* bigger than the dimensions of that particle. *Bentley.*

Nor fits it to prolong the heavenly feast  
*Timeless*, indecent, but retire to rest. *Pope.*

I have resolved to take *time*, and, in spite of all misfortunes, to write to you, at intervals, a long letter. *Swift.*

All ways of holy living, all instances and all kinds of virtue, lie open to those who are masters of themselves, their *time*, and their fortunes. *Lav.*

*TIME*, in music, is an affection of sound, by which it is said to be long or short, with regard to its continuance in the same tone or degree of tune. Musical time is distinguished into common or duple time, and triple time.

*Common time*, *double time*, or *duple*, is when the notes are in a duple duration of each other, viz. a semibreve equal to two minims, a minim to two crotchets, a crotchet to two quavers, &c. It is of two kinds. The first when every bar or measure is equal to a semibreve, or its value in any combination of notes of a less quantity. The second is where every bar is equal to a minim, or its value in less notes. The movements of this kind of measure are various, but there are three common distinctions: the first slow, denoted at the beginning of the line by the mark

C; the second brisk, marked thus C; and the

third very brisk, thus marked D.

*TIME*, *TRIPLE* is when the durations of the notes are triple of each other; that is, when the semibreve is equal to three minims, the minim to three crotchets, &c., and it is marked T. See *MUSIC*.

*TIME* is also a measure of duration, by which soldiers regulate the cadence of a march; as *ORDINARY*, *QUICK*, and *QUICKEST* time or step, which see.

*Double quick TIME*, a measure now adopted to accelerate the movement of troops.

*TIME*, in manœuvring, the necessary interval betwixt each motion in the manual exercise; as well as in every movement of the army, or of any body of men.

*TIME*, in fencing. There are three kinds of time; that of the sword, that of the foot, and that of the whole body. All the times that are perceived out of their measure are only to be considered as appels or feints to deceive and amuse the antagonist.

*TIME*, *THRUST*, in fencing, a thrust, given upon any opening which may occur by an inaccurate or wide motion of your adversary, when changing his guard, &c.

*TIMID*, *adj.* } Fr. *timide*; Lat. *timidus*. Fearful; faint-hearted; wanting courage; wanting boldness: the derivatives all correspond.

*TIMIDITY*, *n. s.*

*TIMOROUS*, *adj.*

*TIMOROUSLY*, *adv.*

*TIMOROUSNESS*, *n. s.*



We would have had you heard  
The traitor speak, and *timorously* confess  
The manner and the purpose of his treasons.

*Shakespeare.*

Prepossessed heads will ever doubt it, and *timorous*  
beliefs will never dare to try it.

*Browne.*

The hare figured pusillanimity and *timidity* from  
its temper.

*Id.*

Though they had ideas enough to distinguish gold  
from a stone, and metal from wood, yet they but *timorously*  
ventured on such terms which should pretend  
to signify their real essences.

*Locke.*

With easy smiles, dispelled the silent fear,  
That durst not tell me what I died to hear.

*Prior.*

Let dastard souls be *timorously* wise:  
But tell them Pyrrhus knows not how to form  
Far-fancied ills, and dangers out of sight.

*A. Philips.*

Poor is the triumph o'er the *timid* hare. *Thomson.*  
The clergy, through the *timorousness* of many among  
them, were refused to be heard by their council.

*Swift.*

**TIMISCOUATA**, a lake of Canada, in Cornwallis county, twenty-two miles in length, by an average breadth of three-quarters of a mile, is encompassed in all directions by lofty mountains covered with thick wood. Several large rivers lend the aid of their streams to swell the waters of this secluded expanse. To this lake there is a portage from the St. Lawrence, by means of which the communication is carried on between Quebec and Halifax, a distance of 627 miles.

**TIMMISKAMAIN LAKE**, a lake of Lower Canada, about thirty miles long, and ten broad, having several small islands. Its waters empty into the Utawas River, by a narrow channel, thirty miles north of Nepissing Lake. The Indians named Timmiskamaings reside round this lake.

**TIMOCHARES**, a celebrated astronomer of Alexandria, who flourished about A. A. C. 294. He and Aristillus attempted to determine the places of the stars, and to trace the course of the planets.

**TIMOCLEA**, a Theban lady, sister of Theagenes, who was killed at Cheronea. One of Alexander's soldiers attempted to ravish her, when, under pretence of showing him a treasure hid in a draw well, she tumbled him into it. Alexander commended her virtue, and prohibited his soldiers from hurting the Theban ladies. *Plut.*

**TIMOCREON**, a comic poet of Rhodes, who gained prizes at Olympia; about 476 B. C.

**TIMOLEON**, a celebrated Corinthian general, who restored the Syracusans to their liberty, and drove the Carthaginians out of Sicily. See **SYRACUSE**.

**TIMON**, the misanthrope, or the man-hater, a famous Athenian, who lived about 420 B. C. We have many sayings of his spleen recorded, but no facts of his life.

**TIMON**, the sceptic, was a Phliasian, a disciple of Pyrrho, and lived in the time of Ptolemy Philadelphus. He took little pains to invite disciples to his school. He was fond of rural retirement; and was much addicted to wine. The fragments of his satirical poem *Silli* are in the *Poesis Philosophica* of Stephens. Timon lived to the age of ninety.

**TIMOPHEEVA**, a town of Russia, in Irkut-

skoi, on the Ilim; thirty-two miles north-west of Verchomansk.

**TIMOR**, the god of Fear. See **FEAR** and **PAVOR**.

**TIMOR**, the largest of the Molucca islands, in the eastern seas. Its extent is more considerable than the charts represent, being little less than 250 miles in a north-eastern direction, by from thirty to sixty in breadth. The interior is a chain of mountains, some of which nearly equal the peak of Teneriffe in elevation; whilst the shores on the south-east side are represented to be exceedingly low, and over-run with mangroves. Gold is said to be contained in the mountains, and to be washed down the streams; but the natives are jealous of Europeans gaining any knowledge of it. At a former period, when forty men were sent by the Dutch to make search for it, they were cut off. The produce of this island is chiefly sandal-wood and wax. Captain Flinders, when he visited this island in 1803, only saw two European residents at Coepang, besides the soldiers and the governor. The original inhabitants of Timor, who are black, but whose hair is not woolly, inhabit the mountainous parts, to which they appear to have been driven by the Malays, who are mostly in possession of the sea coast. There were formerly several Portuguese establishments on the north side of the island, of which Diely and Leffow remained; but these had all gradually declined, and the governor of Diely was then said to be the sole white Portuguese resident on the island.

**TIMOTHEUS**, one of the most celebrated poet musicians of antiquity, was born at Miletus, an Ionian city of Caria, 346 years B. C. He was contemporary with Philip II. of Macedon and Euripides; and not only excelled in lyric and dithyrambic poetry, but in his performance upon the cithara. Pausanias says he perfected that instrument by the addition of four new strings to the seven it had before; but Suidas says it had nine before, and that Timotheus only added two. See **LYRE**. A *senatus consultum* is preserved at full length in Boethius, whereby the kings and the ephori of Sparta passed censure on Timotheus for adding these strings: and obliged him to cut them all, leaving only seven tones; and banished him from the city. Suidas attributes to him nineteen nomes, or canticles, in hexameters; thirty-six poems, or preludes; eighteen dithyrambics; twenty-one hymns; the poem in praise of Diana; one panegyric; three tragedies, the Persians, Phinidas, and Laertes; to which must be added, Niobe, and a poem on the birth of Bacchus. Stephen of Byzantium makes him author of eighteen books of nomes, or airs, for the cithara, to 8000 verses, and of 1000 *Προίμια*, or preludes, for the nomes of the flutes. Timotheus died in Macedonia, according to Suidas, aged ninety-seven; though the Marbles say at ninety; and Stephen of Byzantium fixes his death in the fourth year of the 105th Olympiad, two years before the birth of Alexander the Great; whence it appears that this Timotheus was not the famous player on the flute so much esteemed by that prince, and of whom we have no authentic account.

**TIMOTHEUS**, or **TIMOTHY**, an eminent evange-

ist of the apostolic age, born at Lystra, in Asia. His father was a Greek, but his mother Eunice and his grandmother Lois were Jewesses, and educated him in the true religion. He became an early convert, and a great favorite of St. Paul; whom he accompanied to Philippi, Thessalonica, and Berea. The Episcopalians and Papists say he was the first bishop of Ephesus; but this is contested by the Presbyterians. See SCOTLAND. He was stoned to death A. D. 97.

TIMOTHY, FIRST AND SECOND EPISTLES TO, two canonical books of the New Testament, written by St. Paul. See SCRIPTURE.

TIMOTHY, or TIMOTHY GRASS, in botany. See RURAL ECONOMY.

TIMOXENA, the wife of Plutarch.

TIMUR BEG. See TAMERLANE.

TIN, *n. s.* Sax. *tin*; Belg. *ten*; Swed. *tenn*. One of the primitive metals, called by the chemists Jupiter.

Quicksilver, lead, iron, and tin, have opacity or blackness. *Peucham.*

The cover may be tinned over only by nailing of single tin plates over it. *Mortimer.*

To keep the earth from getting into the vessel, he employed a plate of iron tinned over and perforated. *Boyle.*

Tin ore sometimes holds about one-sixth of tin. *Woodward.*

New tinning a saucepan is chargeable. *Swift.*

TIN is a metal of a yellowish-white color, considerably harder than lead, scarcely at all sonorous, very malleable, though not very tenacious. Under the hammer it is extended into leaves, called tin-foil, which are about  $\frac{1}{1000}$ th of an inch thick, and might easily be beaten to less than half that thickness, if the purposes of trade required it. The process for making tin-foil consists simply in hammering out a number of plates of this metal, laid together upon a smooth block or plate of iron. The smallest sheets are the thinnest. Its specific gravity is 7.29. It melts at about the 442° of Fahrenheit's thermometer; and by a continuance of the heat it is slowly converted into a white powder by oxidation. Like lead it is brittle when heated almost to fusion, and exhibits a grained or fibrous texture, if broken by the blow of a hammer; it may also be granulated by agitation at the time of its transition form the fluid to the solid state. The oxide of tin resists fusion more strongly than that of any other metal; from which property it is useful to form an opaque white enamel when mixed with pure glass in fusion. The brightness of its surface when scraped, soon goes off by exposure to the air; but it is not subject to rust or corrosion by exposure to the weather. To obtain pure tin, the metal should be boiled in nitric acid, and the oxide which falls down reduced by heat in contact with charcoal, in a covered crucible.

There are two definite combinations of tin and oxygen. The first or protoxide is gray; the second or peroxide is white. The first is formed by heating tin in the air, or by dissolving tin in muriatic acid, and adding water of potash to the solution whilst recent, and before it has been exposed to air. The precipitate, after being heated so whiteness to expel the water of the hydrate, is

the pure protoxide. It is convertible into the peroxide by being boiled with dilute nitric acid, dried and ignited. According to Sir. H. Davy, the protoxide contains 13.5 per cent. of oxygen. Supposing it to consist of a prime equivalent of each constituent, that of tin would be 7.333. From the analysis of Berzelius and Gay Lussac, the peroxide is composed of 100 metal + 27.2 oxygen; and, if we regard it as containing 2 primes of the latter principle to one of metal, the prime of this will be 7.353. The mean may be taken at 7.35.

There are also two chlorides of tin. When tin is burned in chlorine, a very volatile clear liquor is formed, a non-conductor of electricity, and which, when mixed with a little water, becomes a solid crystalline substance, a true muriate of tin, containing the peroxide of the metal. This, which has been called the liquor of Libavius, may be also procured by heating together tin-filings and corrosive sublimate, or an amalgam of tin and corrosive sublimate. It consists, according to the analysis of Dr. John Davy, of 2 primes of chlorine = 9 + 1 of tin = 7.35. The other compound of tin and chlorine is a gray semitransparent crystalline solid. It may be procured by heating together an amalgam of tin and calomel. It dissolves in water, and forms a solution, which rapidly absorbs oxygen from the air, with deposition of peroxide of tin. It consists of, Chlorine, 4.5

Tin, 7.35

There are two sulphurets of tin. One may be made by fusing tin and sulphur together. It is of a bluish color, and lamellated texture. It consists of 7.35 tin + 2 sulphur. The other sulphuret, or the bisulphuret, is made by heating together the peroxide of tin and sulphur. It is of a beautiful gold color, and appears in fine flakes. It was formerly called aurum musivum. According to Dr. John Davy, it consists of

1 prime tin = 7.35  
2 sulphur = 4.00.

The salts of tin are characterised by the following general properties:—1. Ferropussiate of potash gives a white precipitate. 2. Hydrosulphuret of potash a brown black with the protoxide, and a golden yellow with the peroxide. 3. Galls do not affect the solutions of these salts. 4. Corrosive sublimate occasions a black precipitate with the protoxide salts, a white with the peroxide. 5. A plate of lead frequently throws down metallic tin, or its oxide, from the saline solutions. 6. Muriate of gold gives, with the protoxide solutions, the purple precipitate of Cassius. 7. Muriate of platinum occasions an orange precipitate with the protoxide salts.

Concentrated sulphuric acid, assisted by heat, dissolves half its weight of tin, at the same time that sulphurous gas escapes in great plenty. By the addition of water, an oxide of tin is precipitated. Sulphuric acid, slightly diluted, likewise acts upon this metal; but, if much water be present, the solution does not take place. In the sulphuric solution of tin there is an actual formation or extrication of sulphur, which renders the fluid of a brown color, while it continues heated, but subsides by cooling. The tin is



likewise precipitated in the form of a white oxide, by a continuance of the heat, or by long standing without heat. This solution affords needle-formed crystals by cooling.

Nitric acid and tin combine together very rapidly without the assistance of heat. Most of the metal falls down in the form of a white oxide, extremely difficult of reduction; and the small portion of tin which remains suspended does not afford crystals, but falls down, for the most part, upon the application of heat to inspissate the fluid. The strong action of the nitric acid upon tin produces a singular phenomenon, which is happily accounted for by the modern discoveries in chemistry. M. de Morveau has observed that, in a solution of tin by the nitric acid, no elastic fluid is disengaged, but ammonia is formed. This alkali must have been produced by the nitrogen of that part of the nitric acid which was employed in affording oxygen to oxidise the tin.

The muriatic acid dissolves tin very readily at the same time that it becomes of a darker color, and ceases to emit fumes. A slight effervescence takes place with the disengagement of a fetid inflammable gas. Muriatic acid suspends half its weight of tin, and does not let it fall by repose. It affords permanent crystals by evaporation. If the tin contain arsenic, it remains undissolved at the bottom of the fluid. Recent muriate of tin is a very delicate test of mercury. M. Chenevix says, if a single drop of a saturated solution of neutralised nitrate, or muriate of mercury, be put into 500 grains of water, a few drops of solution of muriate of tin will render it a little turbid, and of a smoke-gray. He adds, that the effect is perceptible, if ten times as much water be added.

Aqua regia, consisting of two parts nitric and one muriatic acid, combines with tin with effervescence, and the development of much heat. In order to obtain a permanent solution of tin, in this acid, it is necessary to add the metal by small portions at a time; so that the one portion may be entirely dissolved before the next piece is added. Aqua regia in this manner dissolves half its weight of tin. The solution is of a reddish-brown, and in many instances assumes the form of a concrete gelatinous substance. The addition of water sometimes produces the concrete form in this solution, which is then of an opal color, on account of the oxide of tin diffused through its substance.

The uncertainty attending these experiments with the solution of tin in aqua regia, seems to depend upon the want of a sufficient degree of accuracy in ascertaining the specific gravities of the two acids which are mixed, the quantities of each, and of the tin, together with that of the water added. It is probable that the spontaneous assumption of the concrete state depends upon water imbibed from the atmosphere. The solution of tin in aqua regia is used by dyers to heighten the colors of cochineal, lac-dye, and some other red tinctures, from crimson to a bright scarlet, in the dyeing of woollens. The acetic acid scarcely acts upon tin. The operation of other acids upon this metal has been little enquired into. Phosphate, fluat, and ho-

rate of tin, have been formed by precipitating the muriate with the respective neutral salts.

If the crystals of the saline combination of copper with the nitric acid be grossly powdered, moistened, and rolled up in tin-foil, the salt deliquesces, nitrous fumes are emitted, the mass becomes hot, and suddenly takes fire. In this experiment the rapid transition of the nitric acid to the tin is supposed to produce or develop heat enough to set fire to the nitric salts, but by what particular changes of capacity has not been shown.

If small pieces of phosphorus be thrown on tin in fusion, it will take up from fifteen to twenty per cent., and form a silvery white phosphuret of a foliated texture, and soft enough to be cut with a knife, though but little malleable. This phosphuret may be formed likewise by fusing tin filings with concrete phosphoric acid.

Tin unites with bismuth by fusion, and becomes harder and more brittle in proportion to the quantity of that metal added. With nickel, it forms a white brilliant mass. It cannot easily be united in the direct way with arsenic, on account of the volatility of this metal; but, by heating it with the combination of the arsenical acid and potash, the salt is partly decomposed; and the tin, combining with the acid, becomes converted into a brilliant brittle compound, of a plaited texture. It has been said that all tin contains arsenic; and that the crackling noise which is heard upon bending pieces of tin, is produced by this impurity; but, from the experiment of Bayen, this appears not to be the fact. Cobalt unites with tin by fusion; and forms a grained mixture of a color slightly inclining to violet. Zinc unites very well with tin, increasing its hardness, and diminishing its ductility, in proportion as the quantity of zinc is greater.

This is one of the principal additions used in making pewter, which consists for the most part of tin. The best pewter does not contain above one-twentieth part of admixture, which consists of zinc, copper, bismuth, or such other metallic substances as experience has shown to be most conducive to the improvement of its hardness and color. The inferior sorts of pewter, more especially those used abroad, contain much lead, have a bluish color, and are soft. The tin usually met with in commerce, in this country, has no admixture to impair its purity, except such as may accidentally elude the workmen at the mines. But the tin met with in foreign countries is so much debased by the dealers in that article, especially the Dutch, that pewter and tin are considered abroad as the same substance.

Antimony forms a very brittle hard mixture with tin; the specific gravity of which is less than would have been deduced by computation from the specific gravities and quantities of each, separately taken. Tungsten, fused with twice its weight of tin, affords a brown spongy mass, which is somewhat ductile.

The uses of tin are very numerous, and so well known, that they scarcely need be pointed out. Several of them have been already mentioned. The tinning of iron and copper, the silvering of looking-glasses, and the fabrication of a great variety of vessels and utensils for domestic and

other uses, are among the advantages derived from this metal.

**TIN, CHEMICAL PROPERTIES OF.** See CHEMISTRY, Index.

**TIN, MEDICAL PROPERTIES OF.** See MEDICINE, Index.

**TIN, ORES OF.** See METALLURGY and MINERALOGY.

**TIN, TRADE IN.** An advantageous commerce has been lately opened between Cornwall and the East Indies and China. In 1791 about 3000 tons of tin were raised in Cornwall; of which 2200 tons were sold in the European market for £72 each, and 800 tons carried to India and China at £62 per ton. See CORNWALL.

**TIN-PLATE WORKING.**—On the affinity which there is between tin and iron is founded the art of forming what is commonly called tin-plates, which is, properly, tinned iron, or as it is denominated in Scotland, and also on the continent, white iron. The process in manufacturing these plates is simply this: thin plates of malleable iron, thoroughly cleared from all rust or oxide, are dipped into a vessel of melted tin, the surface of which fluid metal is protected from oxidisement by the air, by a thin layer of melted tallow; the tin unites with the iron at each surface, but whether the two metals actually combine is not yet ascertained. The iron thus acquires a white color, is rendered less liable to rust, and its ductility is scarcely at all impaired; hence the plates can be easily bent, and, from the alloy of tin at the surface, can be also easily worked. Iron-plates when tinned over, and which are very thin, have been denominated latten. Of the manufacture of these we have an account in the Philosophical Transactions of the Royal Society, from which we shall extract some particulars.

Plates of iron, being prepared of a proper thickness, are smoothed by rusting them in an acid liquor, as common water made eager with rye; with this liquor they fill certain troughs, and then put in the plates, which they turn once or twice a day that they may be equally rusted over; after this they are taken out and well scoured with sand, and, to prevent their rusting again, are immediately plunged into pure water, in which they are to be left till the instant they are to be tinned or blanched, the manner of doing which is this: they flux the tin in a large iron crucible, which has the figure of an oblong pyramid with four faces, of which two opposite ones are less than the two others. The crucible is heated only from below, its upper part being luted with the furnace all round. The crucible is always deeper, than the plates which are to be tinned are long; they always put them in downright, and the tin ought to swim over them; to this purpose artificers of different trades prepare plates of different shapes, though M. Reaumur thinks them all exceptionable. But the Germans use no sort of preparation of the iron to make it receive the tin, more than the keeping it always steeped in water till the time only when the tin is melted in the crucible; they cover it with a layer of a sort of suet, which is usually two inches thick, and the plate must pass through this before it can come to the melted tin. The

first use of this covering is to keep the tin from burning; for, if any part should take fire, the suet would soon moisten it and reduce it to its primitive state again. The blanchers say this suet is a compounded matter; it is indeed of a black color, but M. Reaumur supposed that to be only an artifice to make it a secret, and that it is only colored with soot or the smoke of a chimney; but he found it true so far that the common unprepared suet was not sufficient; for, after several attempts, there was always something wanting to render the success of the operation certain. The whole secret of blanching, therefore, was found to lie in the preparation of this suet, and this he discovered at length to consist in the first frying and burning it. This simple operation not only gives it the color, but puts it into a condition to give the iron a disposition to be tinned, which it does surprisingly. The melted tin must also have a certain degree of heat; for, if it is not hot enough, it will not stick to the iron; and, if it is too hot, it will cover it with too thin a coat, and the plates will have several colors, as red, blue, and purple, and upon the whole have a cast of yellow. To prevent this, by knowing when the fire has a proper degree of heat, they might try with small pieces of iron; but in general use teaches them to know the degree, and they put in the iron when the tin is at a different standard of heat, according as they would give it a thicker or a thinner coat. Sometimes also they give the plates a double layer, as they would have them very thickly covered. This they do by dipping them into the tin, when very hot, the first time, and when less hot the second. The tin which is to give the second coat must be fresh covered with suet, and that with the common suet, not the prepared. Tin-plates are often manufactured in a different way: the iron in bars, or plates, is cased over with tin, and then drawn out by means of rolling-mills. In 1681 tin-plates were made in England by a person named Andrew Yarranton, who was sent into Bohemia to learn the art, but it was not brought into perfection for more than fifty years; and, since the middle of the last century, it has been carried on in these islands in so perfect a manner that scarcely any have been imported from the continent. Our plates are of a finer gloss, or coat, than those made beyond sea, the latter being chiefly hammered, but ours, according to the plan of which we are now speaking, are always drawn out by the rolling-mill.

The tin-plate worker, a trade well known in London, and all large towns, receives his tin-plate in sheets, and it is his business to form them into all the various articles of domestic use, which are known to every body. The principal instruments that he makes use of are a large pair of fixed shears, to cut the tin to the proper size and shape, a polished anvil, and hammers of various kinds, some of which are highly polished on the face. The joints of his work are made with solder, which he makes himself, and which is a composition of equal parts of tin and lead that the workman causes to unite with the tin-plate, or tinned iron, by means of resin. The two principal wholesale houses in



London are those of Jones and Taylor, in Tottenham Court Road, and of Howard and Co. in Old Street Road. These, and other wholesale traders, have constantly travellers in various parts of the kingdom; and, as they cannot carry the articles of their trade in saddle-bags, like many other manufacturers, they take with them drawings of all works of taste in their line of business.

Tin, in blocks, resembles silver, but it is of a darker hue; it is also much softer, less elastic and sonorous, than any other metal excepting lead: it is most readily extended, and melts with a lower heat than all other metals. When tin is made very hot, it will break with a blow. In the state of ore it is found mixed with arsenic. The chief tin-mines in the known world are those of Cornwall; and it is a fact well ascertained that the Phenicians visited these islands, for the purpose of getting tin from our ancestors, several centuries before the Christian era. In tracing the history of the Cornwall mines, we find that they produced very little in the reign of king John; but the right, at that period, was wholly vested in the sovereign, as earl of Cornwall. Their value has fluctuated at different periods; of late years they have produced to the value of £150,000 or £200,000. The duke of Cornwall, for the time being, receives 4s. upon every cwt. of what is called *coined white tin*, which sometimes amount to £10,000 or £12,000 a-year: the proprietors of the soil have one-sixth, and the rest goes to the adventurers in the mine, who are at the whole charge of working. As the tin is to be thus divided, or rather its real value ascertained, it is stamped and worked at the mill, and it is then carried, under the name of block-tin, to the melting-house, where it is run into blocks, and thence carried to the coinage towns. The coinage towns are Leskard, Lestwithiel, Truro, Helston, and Penzance, being the most convenient parts of the county for the miners.

TINA, an island in the Grecian Archipelago, anciently called Tinos: one of the Cyclades, on the west of Nicaria; seventeen miles long, and eight broad. It is defended by a fort seated on a rock. It is a bishop's see of the Roman church, though there are also 200 Greek priests. It has about 5000 troops. The chief commodity is silk: about 16,000 lbs. are produced annually; and they make silk stockings and gloves, which are universally admired. St. Nicolo is the capital. Long. 25° 24' E., lat. 37° 30' N.

TINCAL, *n. s.* A mineral.

The *tincal* of the Persians seems to be the chryso-calla of the ancients, and what our borax is made of.

Woodward.

TINCAL. Crude borax, as it is imported from the East Indies, in yellow greasy crystals, *s.* called *tincal*.

TINDAL (Dr. Matthew), a famous English writer, the son of the Rev. John Tindal of Beer-Ferres in Devonshire, born about 1657. He studied at Lincoln College, Oxford, and was afterwards elected fellow of All Souls. In 1685 he took the degree of LL. D., and in the reign of James II. declared himself a Roman Catholic; but soon renounced that religion. After the Revolution he published several pamphlets in favor

of government, the liberty of the press, &c. His Rights of the Christian Church Asserted, occasioned his having a violent contest with the high-church clergy; and his treatise Christianity as old as the Creation, published in 1730, made much noise, and was answered by several writers, particularly by Dr. Conybeare, Mr. Forster, and Dr. Leland. Dr. Tindal died at London in August 1733. He left in MS. a second volume of his Christianity as old as the Creation; the preface to which has been published.

TINDALE (William). See TYNDALE.

TINCT, *v. a. & n. s.* } Fr. *teint*; Lat.

TINCTURE, *n. s. & v. a.* } *tinctus*. To stain; color; spot; dye: a color or spot: tincture is synonymous, both as a verb and noun substantive, and more in modern use.

That great med'cine hath

With his *tinct* gilded thee.

Shakspeare.

We have artificial wells made in imitation of the natural, as *tincted* upon vitriol, sulphur, and steel.

Bacon.

Some bodies have a more departible nature than others in colouration; for a small quantity of saffron will *tinct* more than a very great quantity of wine.

Id.

The first scent of a vessel lasts, and the *tinct* the wool first appears of.

Ben Jonson.

The sight must be sweetly deceived by an insensible passage from bright colors to dimmer, which Italian artizans call the middle *tinctures*.

Wotton.

Those who have preserved an innocence, would not suffer the whiter parts of their soul to be discoloured or *tincted* by the reflection of one sin.

Decay of Piety.

'Tis the fate of princes, that no knowledge Come pure to them, but, passing through the eyes And ears of other men, it takes a *tincture* From every channel.

Denham.

Hence the morning planet gilds her horn.

By *tincture* or reflection they augment

Their small peculiar.

Milton.

Some were *tincted* blue, some red, others yellow.

Broune.

I distilled some of the *tincted* liquor, and all that came over was as limpid as rock water.

Boyle.

In *tinctures* drawn from vegetables, the superfluous spirit of wine distilled off, leaves the extract of the vegetable.

Id.

To begin the practice of an art with a light *tincture* of the rules, is to expose ourselves to the scorn of those who are judges.

Dryden.

That beloved thing engrosses him, and, like a coloured glass before his eyes, casts its own colour and *tincture* upon all the images of things.

South.

Few in the next generation who will not write and read, and have an early *tincture* of religion.

Addison.

The bright sun compacts the precious stone,

Imparting radiant lustre like his own:

He *tinctures* rubies with their rosy hue,

And on the sapphire spreads a heavenly blue.

Blackmore.

Early were our minds *tinctured* with a distinguishing sense of good and evil; early were the seeds of a divine love, and holy fear of offending, sown in our hearts.

Atterbury.

All manners take a *tincture* from our own,

Or come discoloured through our passions shown.

Pope.

Have a care, lest some darling science so far prevail over your mind, as to give a sovereign *tincture*

to all your other studies, and discolour all your ideas. *Watts.*

A little black paint will *tincture* and spoil twenty gay colors. *Watts.*

Of evening *tinct*

The purple-streaming amethyst is *tinct*. *Thomson.*

TIN'DER, *n. s.* } Saxon *tyndre*, *tyndre*;

TIN'DERBOX. } Danish *tender*. See *TINE*.

A substance used for kindling fire; any thing eminently inflammable: a box to hold tinder.

Strike on the *tinder*, ho!

Give me a taper. *Shakspeare.*

Where sparks and fire do meet with *tinder*,  
Those sparks more fire will still engender.

*Suckling.*

To these shameless pastimes were their youth admitted, thereby adding, as it were, fire to *tinder*.

*Hakewill.*

That worthy patriot, once the bellows  
And *tinderbox* of all his fellows. *Hudibras.*

He might even as well have employed his time in catching moles, making lanterns and *tinderboxes*.

*Atterbury.*

Whoever our trade with England would hinder,  
To inflame both the nations do plainly conspire;

Because Irish linen will soon turn to *tinder*,  
And wool it is greasy, and quickly takes fire.

*Swift.*

TINE, *n. s.* Sax. *tinbe*; Isl. and Goth. *tinne*.  
The tooth of a harrow; spike of a fork.

The tragical effect,

Vouchsafe, O thou the mournful'st muse of nine,

That won'tst the tragick stage for to direct,

In funeral complaints and wailful *tine*. *Spenser.*

In the southern parts of England they destroy moles by traps that fall on them, and strike sharp *times* or teeth through them. *Mortimer.*

TINE, *v. a.* Sax. *tynan*. To kindle; to light; to set on fire. Obsolete.

Strifeful Atin in their stubborn mind

Coals of contention and hot vengeance *tined*.

*Spenser.*

The clouds

Justling or pushed with winds, rude in their shock,  
*Tine* the slant lightning; whose thwart flame driven down,

Kindles the gummy bark of fir. *Milton.*

The priest with holy hands was seen to *tine*

The cloven wood, and pour the ruddy wine.

*Dryden.*

TINE, *v. a.* Belg. *teen*. To rage; smart; fight. Obsolete.

Eden stained with blood of many a band  
Of Scots and English both, that *tined* on his strand.

*Spenser.*

TINEH, or THINEH, an ancient city in Lower Egypt, situated on the Pelusiatic branch of the Nile. This branch is now reduced to little more than a channel of mud, traversing a smooth, barren, and naked plain; and the castle of Tineh, which appears to have been built about the time of the conquest of Selim, is falling to ruins. Long. 32° 30' E., lat. 30° 55' N.

TINELLI (Tiberius), an eminent historical and portrait painter, born at Venice in 1586. Louis XII. conferred on him the order of St. Michael. He died in 1638.

TINGE, *v. a.* } Lat. *tingo*. To impregnate  
TINGENT, *adj.* } or imbue with a color or taste:  
the adjective corresponding.

This wood, by the tincture it afforded, appeared

to have its coloured part genuine; but, as for the white part, it appears much less enriched with the *tingent* property. *Boyle.*

Sir Roger is something of an humourist; and his virtues, as well as imperfections, are *tinged* by a certain extravagance, which makes them particularly his. *Spectator.*

She lays some useful bile aside,  
To *tinge* the chyle's insipid tide;  
Else we should want both gibe and satire,  
And all be burst with pure good-nature. *Prior.*

If the eye be *tinged* with any colour, as in the jaundice, so as to *tinge* pictures in the bottom of the eye with that colour, all objects appear *tinged* with the same colour. *Newton.*

The infusions of rhubarb and saffron *tinge* the urine with a high yellow. *Arbuthnot.*

TINGIS, an ancient sea-port town of Mauritania Tingitana, said to have been built by the giant Antæus. Sertorius the Roman general took it, and Plutarch says he opened the tomb of the founder, and found in it a skeleton sixty cubits long. It is now called Tangier.

TINGITANA, in ancient geography, a district of Mauritania, which comprehended a considerable part of Fez and Morocco. It was so named from Tingis its capital.

TINGLE, *v. n.* Sax. *tinclan*; Belg. *tingelen*. To feel a sharp pain, as after the stagnation of blood; to feel a sound, or the continuance of a sound, in the ears. This is, perhaps, rather tinkle.

The ears of them that hear it shall *tingle*. *Bible.*

When our ear *tingleth*, we usually say that somebody is talking of us; which is an ancient conceit.

*Brown.*

In a palsy, sometimes the sensation of feeling is either totally abolished, or dull with a sense of *tingling*. *Arbuthnot.*

They suck pollution through their *tingling* veins.

*Tichel.*

The pale boy senator yet *tingling* stands. *Pope.*

TINIAN, one of the Ladrone islands, in the North Pacific, about forty-two miles in circumference, was discovered by the crew of a Manilla ship, which was cast away here in the year 1638. The author of Anson's Voyage gives a pleasing description of this island, as found by the crew of the Centurion, in the year 1742; and we are indebted to him for the first description of it. The want of any proper roadstead exposes vessels touching at this island to great danger: the seas are often tremendous, and are increased by the rapidity of the tides, which occasion such a hollow and overgrown sea that Anson mentions they were in continual apprehension of being pooped by it, though they were in a sixty gun ship. Byron visited this island in 1765. Tinian was visited in 1767 by captain Wallis; in 1787 by captain Portlock; in 1788 by captain Sever, and afterwards by other navigators, all of whom confirm the account given of it by commodore Byron.

TINKER, *n. s.* From tink, a small noise, because their way of proclaiming their trade is to beat a kettle, or because in their work they make a tinkling noise. A mender of old brass, kettles, &c.

Am not I old Sly's son, by education a card-maker, and now by present profession a *tinker*?

*Shakspeare.*



My copper medals by the pound  
May be with learned justice weighed ;  
To turn the balance, Otho's head  
May be thrown in ; and, for the mettles,  
The coin may mend a tinker's kettle. *Prior.*

**TINKLE**, *v. n.* Fr. *tinter* ; Goth. *tinga* ; Lat. *tinno*. To make a sharp quick noise ; to clink : to hear a low, quick noise (improper).

The daughters of Zion are haughty, and walk with stretched out necks, making a *tinkling* with their feet. *Isaiah.*

His feeble hand a javelin threw,  
Which, fluttering, seemed to loiter as it flew,  
Just, and but barely, to the mark it held,  
And faintly tinkled on the brazen shield. *Dryden.*

With deeper brown the grove was overspread,  
A sudden horror seized his giddy head,  
And his ears tinkled, and the colour fled. *Id.*

The wandering streams that shine between the hills,  
The grots that echo to the tinkling rills. *Pope.*

The sprightly horse  
Moves to the musick of his tinkling bells. *Dodley.*

**TINNEVELLY**, an extensive district of the south of India, province of the Carnatic, 150 miles in length by fifty in breadth, occupying the south-east extremity of the peninsula, and separated from Ceylon by the gulf of Manaar.

**TINNING**, the covering or lining of anything with melted tin, or with tin reduced to a very fine leaf. Kettles, sauce-pans, and other kitchen utensils, which are usually made of copper, are tinned, if of new copper, should first be cleaned or scoured with salt and sulphuric acid diluted with water. This, however, is not always done ; some workmen contenting themselves with scouring it with sand perfectly dry, or with scales of iron. Powdered rosin is then strewed over it ; and, when the vessel or utensil is considerably heated, melted tin is poured into it, and rubbed with flax coiled hard over the surface to be coated. This tin may be either pure, such as that known by the name of grain tin ; or a composition consisting of two parts of tin and one of lead. For very obvious reasons, we should certainly prefer the pure tin ; but the generality of workmen give the preference to the composition, because the surface coated with it appears more brilliant. The tin is not always put into the vessel in a liquid state ; for some workmen strew it in small pieces over the surface to be coated, and then heat the vessel till the tin melt, when they rub it as formerly. In tinning old vessels, which have been tinned before, the process is somewhat different. In these cases the surface is first scraped with an instrument proper for the purpose, or scoured with the scales of iron, from a blacksmith's shop ; it is then strewed over with sal ammoniac in powder, instead of rosin, or an infusion of sal ammoniac in stale urine is boiled in it till the urine be evaporated, and it is then tinned with pure tin ; the composition of tin and lead being in this case never used. The tin, while liquid, is rubbed into the surface with a piece of sal ammoniac, instead of a bundle of flax. When iron vessels are to be tinned, they are first cleaned with muriatic acid, after which the process is the same as in the tinning of old copper.

**TINNING OF COPPER.** To prevent the poisonous effects of copper, culinary vessels made of

that metal are usually covered with tin on the inside. In preparing them for this operation, the vessels are first scraped clean and bright. They are next rubbed with sal ammoniac, to clean them more completely. They are then heated and sprinkled with powdered rosin, which prevents the surface of the copper from being oxidated or calcined. The melted tin is then poured on, and spread about. It is, however, justly complained, that one single tinning of copper vessels is not sufficient to preserve them from the action of the air, moisture, and saline substances ; because these vessels, even when well tinned, are observed to be liable to rust. This may be remedied by a thicker covering of tin. A manufacture of this kind was some years ago established at Edinburgh. The method is to make the surface of the copper very rough, upon a rough faced anvil, or by a machine contrived on purpose, and the tin put upon it in this state ; after which the copper, with the tin on it, is hammered quite smooth. It was objected to this invention and real improvement, even by the celebrated Fourcroy himself, that the degree of heat, often superior to that of boiling water, to which such vessels are exposed, would melt the tin, and leave the copper uncovered. But this objection is void of foundation ; for tin will not melt with any degree of heat while it is covered by water. To prevent every such consequence, some propose an alloy of silver or platinum ; but the proposal is not necessary, and besides would prove too expensive for culinary vessels. Vessels that are only lined with a single covering of tin require a very small quantity of that metal, a vessel of nine inches diameter, and three inches and a quarter deep, requiring no more than the surprising small quantity of twenty-one grains of tin to cover it perfectly. Only, in using these vessels, care should be taken to allow no corrosive or solvent liquid to remain long in them after using ; and, when any particle of the tin begins to wear off, the vessel should be tinned all over anew, which will cost a mere trifle.

**TINNITUS AURIUM**, a noise in the ears like the continued sound of bells, very common in many disorders, particularly in nervous fevers.

**TINSEL**, *n. s. & v. a.* Fr. *etincelle*. A kind of shining cloth ; any thing shining and of small value : to decorate with cheap and showy ornaments.

It's but a night-gown in respect of yours ; cloth of gold and cuts, underborne with a bluish tinsel. *Shakespeare.*

A tinsel veil her amber locks did shroud,  
That strove to cover what it could not hide. *Fairfax.*

Hence, you fantastick postillers in song,  
My text defeats your art, 'tis nature's tongue,  
Scorns all her tinselled metaphors of pelf,  
Illustrated by nothing but herself. *Cleaveland.*

By Thetis' tinsel slipped feet,  
And the songs of syrens sweet. *Milton.*

For favours cheap and common who would strive ?  
Yet scattered here and there I some behold,  
Who can discern the tinsel from the gold. *Dryden.*

If the man will too curiously examine the superficial tinsel good, he undeceives himself to his own cost. *Norris.*

Ye tinsel insects, whom a court maintains,  
That count your beauties only by your stains,

Spin all your cobwebs o'er the eyes of day,  
The muse's wing shall brush you all away. *Pope.*

She, *tinsel'd* o'er in robes of varying hues,  
With self-applause her wild creation views;  
Sees momentary monsters rise and fall,

And with her own fool's colours gilds them all. *Id.*  
**TINT**, *n. s.* Fr. *teinte*; Ital. *tinta*. A dye;  
color.

Whether thy hand strike out some fresh design,  
Where life awakes, and dawns at every line;  
Or blend in beauteous *tint* the coloured mass,  
And from the canvass call the mimic face. *Pope.*

The virtues of most men will only blow,  
Like coy auriculas, in Alpine snow;  
Transplant them to the equinoctial line,  
Their vigour sickens, and their *tints* decline. *Harte.*

Though it be allowed that elaborate harmony of  
colouring, a brilliancy of *tints*, a soft and gradual  
transition from one to another, present not to the eye  
what an harmonious concert of music does to the  
ear; it must be remembered that painting is not  
merely a gratification of sight. *Reynolds.*

**TINTERN**, Wexford, Ireland, is eighty-five  
miles from Dublin. William Mareschal, earl of  
Pembroke, built here, on the sea-shore, in con-  
sequence of his vow when in danger of ship-  
wreck, an abbey, founded in 1200, and which  
received monks from Tintern, in Monmouth-  
shire.

**TINTO**, a river of the south of Spain, in  
Seville, which runs into the Atlantic, to the west  
of the Guadalquivir, near the town of Moguer.  
It derives its name from the color of its water,  
which, in the early part of its course, is yellow,  
and so bitter that no animal except goats will  
drink it. It is of a petrifying quality, and hard-  
ens and conglutinates the stones in its bed.  
This singular effect arises probably from a metal-  
lic infusion received at or near its source; for it  
disappears after its stream has been increased by  
other rivers. At its mouth it forms a considerable  
bay, about seven miles in breadth; and large  
vessels sail up as far as San Juan del Puerto,  
about twelve miles inland.

**TINTORETTO** (James Robusti), a celebrated  
painter, born at Venice in 1512. He was the  
disciple of Titian, who, fearing he would become  
a powerful rival, dismissed him. His son and  
daughter were also good artists. He died in  
1594.

**TINY**, *adj.* Dan. *tint*, *tynd*. Perhaps a di-  
minutive of thin. Little; small; puny.

Any pretty little *tiny* kickshaws. *Shakespeare.*

But ah! I fear thy little fancy roves,  
On little females, and on little loves;  
Thy pigmy children and thy *tiny* spouse,  
The baby playthings that adorn thy house. *Swift.*

**TIoga**, a county of the United States, in  
New York, bounded north by an angle of Steu-  
ben county, and by Seneca and Cayuga coun-  
ties, east by Broome county, south by the state  
of Pennsylvania, and west by Steuben county.  
Its form is nearly that of a square, twenty-six by  
thirty-four miles; the area is 892 miles, or  
571,306 acres. The surface is considerably  
broken and hilly, and some parts may even  
aspire to the mountain character; though in  
general it falls far below it. The agriculture is  
improving and productive, and population is  
increasing. Chief town, Spencer.

**TIP**, *n. s. & v. a.* Belg. *tip*, *tipken*; Isl. and  
Swed. *tip*. Top; end; point; extremity: to  
furnish with a top; to end; to top.

The *tip* no jewel needs to wear,  
The *tip* is jewel of the ear. *Sidney.*

They touch the beard with the *tip* of their tongue,  
and wet it. *Bacon.*

Thrice upon thy finger's *tip*,  
Thrice upon thy rubied lip. *Milton.*

In his hand a reed  
Stood waving, *tipped* with fire. *Id.*

With truncheon *tipped* with iron head,  
The warrior to the lists he led. *Hudibras.*

She writes love letters to the youth in grace,  
Nay, *tips* the wink before the cuckold's face. *Dryden.*

The pert jackanapes *tipped* me the wink, and put  
out his tongue at his grandfather. *Taylor.*

All the pleasure dwells upon the *tip* of his tongue.  
*South.*

How would the old king smile  
To see you weigh the paws, when *tipped* with gold,  
And throw the shaggy spoils about your shoulders!  
*Addison.*

She has fifty private amours, which nobody yet  
knows any thing of but herself, and thirty clandes-  
tine marriages, that have not been touched by the *tip*  
of the tongue. *Id.*

I no longer look upon lord Plausible as ridiculous,  
for admiring a lady's fine *tip* of an ear and pretty  
elbow. *Pope.*

Quartos, octavos, shape the lessening pyre,  
And last a little Ajax *tips* the spire. *Id.*

A third rogue *tips* me by the elbow. *Swift.*

When I saw the keeper frown,  
*Tipping* him with half a crown,  
Now, said I, we are alone,  
Name your heroes one by one. *Id.*

*Tip*t with jet,  
Fair ermines spotless as the snows they press.  
*Thomson.*

**TIPERA**, called by the Mahometans Roshe-  
abad, an extensive district of Bengal, is situated  
on the eastern side of the Brahmapootra or  
Megna River, and between 22° and 24° of N.  
lat. On the eastern quarter it is divided from  
Ava, or the Birman dominions, by a range of  
mountains and impervious woods, abounding  
with wild elephants and other ferocious animals.  
The district is supposed to contain nearly 7000  
square miles; but of this space a very considerable  
portion is wild and uncultivated, inhabited only  
by a scanty population, of an uncivilised race,  
denominated kookies.

**TIPPERARY**, a county in the province of  
Munster and kingdom of Ireland, bounded on  
the north by the King's county, and on the east by  
Queen's county and county of Kilkenny, on the  
south by Waterford, and on the west by the river  
Shannon and by a part of Limerick county. Its  
greatest length is about sixty-six miles, and  
greatest breadth about forty; but this return  
is not to be depended on, the county map, by  
Neville Bath, being confessedly incorrect. It  
contains above 800,000 English acres, only three-  
fourths of which are at present subject to county  
rates, according to the return of the treasurer in  
1824. This county is divided into eleven baro-  
nies, three corporations, and 154 parishes. The  
baronies are Iffa and Offa East, Iffa and Offa  
West, Middlethird, Clanwilliam, Slievardagh,



Kilnemanagh, Eliogarty, Skerrin, Ownney and Arra, Lower Ormond and Upper Ormond. The corporate towns are Clonmel (which continues to return a representative to parliament), Cashel, and Fethard. There is no record specifying the number of acres in these corporate towns. The chief towns of Tipperary are Templemore, Clonmel, Carrick-on-Suir, Caher, Clogheen, Roscrea, Fethard, Nenagh, and Newport. The population of the entire county amounts to about 347,000, and the number of habitations to 55,000. The benefits of education appear to be extended to the poor of this district on a very liberal scale. Of the schools established by public and private bounty only fifty are retained upon authority; these afford education, and support in part, to about 4500 children. Besides which there are, in Tipperary town, a school on Sir E. Smith's foundation, unattended; and schools upon private foundations, supported by Mr. Foster, lord Ormond, lord Glenyall, James Hewitt, esq., Massey Dawson, esq., lord Dunally, Mrs. Lannigan, Mr. Grady, count Dalton, and other benevolent persons. From Templemore, Belough, and Johnstown schools, no return of the pupils is yet supplied. From all which it is manifest that the poor enjoy the benefits of education very extensively in this county. A useful branch of practical education, spinning, is taught at public schools, established for the purpose, in Caher and Fethard. The surface of Tipperary is varied, consisting of much bog, a great range of mountain, and extensive districts of singularly fertile low land. There are here about 40,000 acres of reclaimable bog, all lying in the neighbourhood of limestone gravel. The Galtee mountains, which encumber this county, rise to a height of 2500 feet above sea level, and extend in length above twenty miles; while, to the north of Galtimore, the loftiest of this range, lies the district called the Golden Vale, so famous for its natural fertility. The nature of this county, in general, resting, as the flat lands here do, upon a limestone base of the latest formation, peculiarly adapts it to pasturage. Besides the Galtee range there are the Sliebh-na-man mountains in the south-east; the Knock-rude-down, between Tipperary and Waterford; the Sliebh-na-musts; the Keeper, and the Sliebh-bloom ranges, in the last of which is the famous gap, or pass, called the Devil's Pit. The silver mines in this district are not now worked (see article IRELAND for an account of their present state, and probable benefit of working them). Between the river Nore and the town of Cashel lies the county known to geologists as the Tipperary coal district. In this region, as in all in the southern division of Ireland, stone coal only is raised. There are no manufactures here, agricultural pursuits alone engaging the inhabitants. For all produce of this description the chief outlet is the port of Waterford, with which the chief towns communicate, by means of the navigable river called the Suir. The proposed rail-way, on an extensive scale, connecting Limerick and Waterford, and branching to Carrick-on-Suir, will open the interior of the county to both these places of exportation. The Suir is the only river of any magnitude in the county, but the Shannon washes the

county for a great part on the west. Tipperary was anciently divided into two great districts, the northern and more mountainous, called Ormond (a palatinate subject to the noble house of Ormond); the southern, called Holy Cross, tributary to the famous abbey of that name. This large county abounds in interesting remains of antiquity, both military and ecclesiastical. Among the former are, the castle of Ardfinnan, built by king John, the old castle called Nenagh Round, and the singular building at Roscrea. But the monastic ruins of Tipperary are not exceeded by those even of Great Britain. The many graceful and ancient structures in the extensive pile on the rock of Cashel are not more picturesque in situation, standing on the summit of a lofty and precipitous rock, than they are interesting to the learned antiquarian. Here stands, grouped with the cathedral, with square and round towers, of unknown date, the curious chapel erected by Cormac Mac Culinan, king and archbishop of Cashel, in the year 901. It is stone roofed, and in excellent preservation. The exquisite workmanship still existing in Holy Cross abbey, seven miles from Cashel, is deserving of notice from the antiquarian, the tourist, and the architect. And the scenery of Athassel Abbey is exquisitely soft and beautiful. The county of Tipperary, then, may be represented as one of the largest, most fertile, and most interesting in the kingdom. Education is here widely diffused. Coals exist in abundance. Mineral productions, doubtless, may be found in the great mountain ranges which occupy so much of the surface, the scenery of whose glens is particularly beautiful. The ancients too have contributed to augment the intent of Tipperary scenery by the numerous graceful structures they have erected here, which, while they give beauty to the scenery, are accompanied by feelings of historic dignity creditable to the sanctity, hospitality, and munificence of the ancient inhabitants.

TIPPERARY a town in the county of the same name, in the province of Munster, and kingdom of Ireland, 110 miles from the city of Dublin. Here is a poor school of Sir Erasmus Smith's foundation, which, in 1821, was unattended. It is a post and market-town, and holds three fairs in each year. The population amounts to 6000 souls. The ruins of an ancient monastery are extant here, supposed to have been founded in the reign of Henry III. for eremites of the Augustinian order. In 1329 this place was burned by the famous Breynne O'Breyn. Tipperary is a rectory in the diocese of Emly.

TIP'PET, *n. s.* Sax. *træppet*. Something worn about the neck.

His turban was white, with a small red cross on the top: he had also a *tippet* of fine linen. *Bacon*.

TIP'PLE, *v. a., v. n., & n. s.* } Old. Teut.  
TIP'PLED, *adj.* } *tepel*, a dug,  
TIP'PLER, *n. s.* } or a frequen-  
TIP'SY, *adj.* } tive of TOPE.

To drink luxuriously; waste life over the cup; get drunk frequently: drink; liquor: tippled and tipsy mean overpowered by drink; drunk.

Let us grant it is not amiss to sit,  
And keep the turn of *tippling* with a slave,  
To reel the streets at noon. *Shakspeare*.

The riot of the *tipsy* bacchanals,  
Tearing the Thracian singer in their rage. *Id.*  
While his canting drone-pipe scanned  
The mystick figures of her hand,  
He *tipples* palamestry, and dines  
On all her fortune-telling lines. *Cleaveland.*  
Welcome joy and feast,  
Midnight shout and revelry,  
*Tipsey* dance and jollity. *Milton.*  
To a short meal he made a tedious grace,  
Before the barley-pudding comes in place;  
Then bids fall on; himself for saving charges  
A peeled sliced onion eats, and *tipples* verjuice. *Dryden.*

Merry, we sail from the east,  
Half *tippled* at a rainbow feast. *Id.*  
While the *tipple* was paid for, all went merrily on. *L'Estrange.*

If a slumber haply does invade,  
My weary limbs, my fancy still awake,  
Thoughtful of drink, and eager, in a dream,  
*Tipples* imaginary pots of ale. *Philips.*

**TIPPOO SAHEB**, sovereign of Mysore, was the son and successor of Hyder Ally, and maintained the independence of his states against the great Mogul, by the assistance of the French, during the war with America. When the French Revolution deprived him of his European allies, he had to contend with the English, who defeated him in several battles, until in 1792 he was compelled by marquis Cornwallis to sue for peace, which was granted on his payment of a large sum of money, ceding part of his territories, and giving up his two sons to the British general as hostages. His fierce and haughty disposition, however, led to a revival of the war in 1799; it was terminated by the capture of Seringapatam, by an English force under general Harris, in the defence of which capital the sultan lost his life. Tippoo was personally brave, but rash and presumptuous, although possibly no qualities would long have preserved his dominion.

**TIP-STAFF**, *n. s.* Tip and staff. An officer with a staff tipped with metal. The staff itself so tipped.

One had in his hand a *tipstaff* of a yellow cane, tipped at both ends with blue. *Bacon.*

**TIPTOE**, *n. s.* Tip and toe. The end of the toe.

Where the fond ape himself uprearing high,  
Upon his *tiptoes* stalketh stately by. *Spenser.*  
He that outlives this day, and comes safe home,  
Will stand a *tiptoe* when this day is named,  
And rouse him at the name of Crispian. *Shakspeare.*

Night's candles are burnt out, and jocund day  
Stands *tiptoe* on the misty mountains' tops. *Id.*

Religion stands *tiptoe* in our land,  
Ready to pass to the American strand. *Herbert.*  
Ten ruddy wildings in the wood I found,  
And stood on *tiptoes* from the ground. *Dryden.*

**TIPULA**, the crane-fly, a genus of insects belonging to the order of diptera. The mouth is a prolongation of the head; the upper jaw is arched. They have two palpi, which are curved, and longer than the head. The proboscis is short, and bends inwards. Gmelin enumerates 123 species, of which fourteen are British. They are divided into two families. 1. Those with wings displayed. 2. Those with wings incumbent, and which in form resemble a gnat. This two-winged insect is often taken for the gnat, which it re-

sembles, but has not its mischievous instinct, nor its murderous proboscis. The larger tipulæ go by the name of sempstresses, the small ones by that of culiciform; the latter, in fine summer evenings, flutter about the water side in legions. The grubs of the larger tipulæ dwell in holes of decayed willows, where they change into chrysalids, and in that state have the faculty of breathing through two small curve horns; besides which they are endowed with progressive motion, but not retrogressive, being impeded by little spines placed on every ring of the abdomen. The larvæ and chrysalids of the little tipulæ are found in water. They are various in color, form, and carriage; some being gray, others brown, and others red; some, like the polypus, furnished with a pair of arms; several with cylindrical tubes that perform the office of vent holes. These swim with nimbleness; those never leave the holes they have dug for themselves in the banks of rivulets. Lastly, others make a silken cocoon that receives part of their body; but all of them, after a period, renounce their reptile and aquatic life, and get wings; their frame is then so weak that a touch is enough to crush them. They are sometimes of a beautiful green, sometimes coal-black; and the most remarkable are those whose fore-legs, extraordinarily long, do not touch the ground, and are moveable like antennæ.

**TIRABOSCHI** (Jerome), a celebrated Italian writer, born at Bergamo, in 1731. He was a Jesuit, and became professor of oratory at Milan, and librarian to the duke of Modena, who ennobled him. He wrote, 1. *Memoirs of the Order of Homilies*. 2. *History of the Writers of Modena*, in 6 vols. 4to. 3. *History of Italian Literature*, from the age of Augustus, 13 vols. 4to. He died in 1794.

**TIRAQUEAU**, or **TIRAQUELLUS** (Andrew), a French lawyer of the sixteenth century. He was a counsellor in the parliament of Paris, and labored much to banish chicanery from the law. He was much employed by Francis I. and Henry II. in important affairs, and approved himself a man of integrity. His works make 7 vols. folio. He died in 1574.

**TIRAS**, a son of Japhet, the founder of Thrace.

**TIRE**, *n. s.* & *v. a.* } Saxon *tyre*; Belgic  
**TIRE**/WOMAN, *n. s.* } *tyrr*; Fr. *tours*, a head-  
dress. Sometimes  
**TIR'NGHOUSE**, } written tier, and used  
**TIR'NGROOM**, }  
for rank; row; a head-dress; furniture; apparatus: to tire is to dress the head: the compounds seem to explain themselves.

Jezebel painted her face, and *tired* her head. *2 Kings.*

On her head she wore a *tire* of gold,  
Adorned with jems and ouches. *Spenser.*

Here is her picture: let me see;  
If I had such a *tire*, this face of mine  
Were full as lovely as this is of hers. *Shakspeare.*

This green plot shall be our stage, this hawthorn  
brake our *tiringhouse*. *Id.*

Your lowest *tire* of ordnance must lie four foot  
clear above water, when all loading is in, or else  
those, your best pieces, will be of small use at sea, in  
any grown weather that makes the billows to rise. *Raleigh.*

Stood ranked of seraphim another row  
In posture to displode their second *tire*  
Of thunder. *Milton.*



Man's life's a tragedy, his mother's womb,  
From which he enters, is the *tiringroom*;  
This spacious earth the theatre, and the stage  
That country which he lives in; passions, rage,  
Folly, and vice, are actors. *Wotton.*

The judge of torments, and the king of tears,  
Now fills a burnished throne of quenchless fire,  
And for his old fair robes of light he wears  
A gloomy mantle of dark flame; the *tire*  
That crowns his hated head, on high appears. *Crashaw.*

Why should they not value themselves for this  
outside fashionableness of the *tirewoman's* making,  
when their parents have so early instructed them to  
do so? *Locke.*

When they first peep forth of the ground, they  
shew their whole *tire* of leaves, then flowers, next  
seeds. *Woodward.*

In all those wars there were few *tiremes*, most of  
them being of one *tire* of oars of fifty banks. *Arbutnot.*

When the fury took her stand on high,  
A hiss from all the snaky *tire* went round. *Pope.*

*TIRE*, *v. a.* } Saxon *ṭīman*. To fa-  
*TIRE*DNESS, *n. s.* } tigue; make weary; harass;  
*TIRE*SOME, *adj.* } often taking out (intensive):  
tiredness, is the state of being tired; weariness: tiresome; wearisome; tedious. *Bacon.*

Often a few that are stiff do *tire out* a greater number that are moderate. *Bacon.*

It is not through the *tiredness* of the age of the earth, but through our own negligence, that it hath not satisfied us bountifully. *Hakewill.*

*Tired* with toil, all hopes of safety past,  
From prayers to wishes he descends at last. *Dryden.*

Saint George's worth  
Enkindles like desire of high exploits  
Immediate sieges, and the *tire* of war,  
Rowl in thy eager mind. *Philips.*

Since the inculcating precept upon precept will  
prove *tiresome* to the reader, the poet must sometimes  
relieve the subject with a pleasant and pertinent digression. *Addison.*

A lonely way  
The cheerless Albion wandered half a day;  
*Tired out*, at length a spreading stream he spy'd. *Tichel.*

*TIRE*, in the sea language, is a row of cannon placed along a ship's side, either above upon deck, or below, distinguished by the epithets of upper and lower tires.

*TIRESIAS*, a soothsayer of antiquity, was the son of Everes and Chariclo. Minerva, being accidentally seen by him as she was bathing, deprived him of his sight; but gave him afterwards superior endowments. Others say that Juno struck him stone-blind for deciding a case, between Jupiter and her, to her dissatisfaction; for which Jupiter gave him the faculty of divination. He was the most celebrated prophet in the Grecian annals. Ulysses was ordered by Circe to consult him in the shades.

*TIRHOOT*, an extensive district of Hindostan, province of Bahar, situated principally between 27° and 28° N. lat. Although not hilly, the surface of this district is more elevated, the soil drier, and the climate healthier, than Bengal. It is, generally speaking, well cultivated, and very productive of grain, sugar, indigo, tobacco, opium, and saltpetre; and of late years the breeding of horses and cattle has received much encouragement from government.

*TIRLEMONT*, or *TIENEN*, an inland town of the Netherlands, in the province of South Brabant, on the small river Geete, is tolerably built, and has considerable manufactures of woollens; also breweries and distilleries. It is said to have been more populous and thriving; in modern times, it is known chiefly as the scene of military encounters between the French and Austrians; first in November 1792, when the latter were worsted; and afterwards in March 1793, when (on the 16th) they again sustained a check, but took a signal revenge two days after, at the decisive battle of Neerwinden. Population 8000. Twenty-five miles east of Brussels.

*TISÆUM*, a mountain of Thessaly.—*Pol.*

*TISAMENES*, a son of Orestes and Hermione who succeeded to the thrones of Argos and Sparta, but was expelled by the Heraclidæ in the third year of his reign. He retired to Achaia, and was killed in a battle with the Ionians.—*Paus. 3.*

*TISAMENES*, king of Thebes, the son of Thersandes, grandson of Polynices, and great-grandson of Edipus.

*TISDRA*, a town of Africa.—*Cæs. Afr. 76.*

*TISIPHONE*, in the mythology, daughter of Acheron and Nox, one of the three Furies who executed divine vengeance on the wicked in Tartarus. She was represented with a whip in her hand, and serpents, instead of hair, on her head.

*TISRI*, or *TIZRI*, in chronology, the first Hebrew month of the civil year, and the seventh of the ecclesiastical or sacred year. It answered to part of our September and October.

*TISSA*, an ancient town of Sicily, now called Randazzo.—*Sil. Ital. Cic.*

*TISSOT* (Dr.), an eminent Swiss physician, the author of many useful works. He distinguished himself early by writing in favor of Inoculation. He died in 1797.

*TIS'SUE*, *n. s.* & *v. a.* Sax. *ṭīsan*; Fr. *tissue*. Cloth interwoven with gold or silver, or figured colors: to interweave in this way; variegate.

The chariot was covered with cloth of gold *tissued* upon blue. *Bacon.*

They have been always frank of their blessings to countenance any great action; and then, according as it should prosper, to *tissue* upon it some pretence or other. *Wotton.*

Mercy will sit between,  
Throned in celestial sheen,  
With radiant feet the *tissue* clouds down steering. *Milton.*

In their glittering *tissues* emblazed  
Holy memorials, acts of zeal and love,  
Recorded eminent. *Id.*

A robe of *tissue*, stiff with golden wire;  
An upper vest, once Helen's rich attire;  
From Argos by the famed adulteress brought,  
With golden flowers and winding foliage wrought. *Dryden.*

*TIT*, *n. s.* Teut. *tyt*, a small bird. A small horse; generally in contempt.

No storing of pasture with baggagely *tit*,  
With ragged, with aged, and evil at hit. *Tusser.*  
Thou might'st have ta'en example  
From what thou read'st in story;  
Being as worthy to sit  
On an ambling *tit*

As thy predecessor Dory. *Denham.*

A willing *tit*, that will venture her corps with you.

*Dryden.*

What does this envious *tit*, but away to her father with a tale?

*L'Estrange.*

**TITIA**, in the mythology, the mother of the Titans. Some confound her with Terra, or Cybele.

**TITAN**, in fabulous history, the son of Cælus and Terra, and the eldest brother of Saturn, suffered the latter to enjoy the crown on condition that he should bring up none of his male issue, by which means the crown would at length revert to him; but Jupiter being spared by the address of Rhea, Saturn's wife, Titan and his children were so enraged at seeing their hopes frustrated that they took up arms to revenge the injury; and not only defeated Saturn, but kept him and his wife prisoners till he was delivered by Jupiter, who defeated the Titans; when, from the blood of these Titans slain in the battle, proceeded serpents, scorpions, and all venomous reptiles. See SATURN, and MYTHOLOGY.

**TITANIA**, a title of Pyrrha, as grand-daughter of Titan; also of Diana.—Ovid.

**TITANIC ACID**, in chemistry. By fusing powdered rutile with thrice its weight of carbonate of potash, dissolving the compound in muriatic acid, precipitating by caustic ammonia, digesting the precipitate for a certain time with hydrosulphuret of ammonia, and then digesting the solid matter left in weak muriatic acid, Mr. Rose obtains a perfectly white oxide of titanium, which is not attacked by acids, but which becomes red by touching moistened litmus. As it acts with alkalis precisely as an acid, Mr. Rose calls it titanic acid.

It is said to consist of titanium . . . 66·05  
oxygen . . . 33·95;

whence if, like the other metallic acids, this be supposed to contain three atoms of oxygen, the atomic weight of the metal will be 5·83, or possibly 6.

Acid titanate of potash consists of,  
titanic acid . . . . . 82·33 } 100.  
potash . . . . . 17·77 }

Acid titanate of soda,  
titanic acid . . . . . 83·15 } 100.  
soda . . . . . 16·85 }

Sulpho-titanic acid consists of,  
titanic acid . . . . . 76·67 } 100.  
sulphuric acid . . . . . 7·67 }  
water . . . . . 15·66 }

Oxalo-titanic acid of—titanic acid 74·1; oxalic acid 10·4; water 15·5.

Sulphuret of titanium consists of titanium 49·17; sulphur 50·83.

Protochloride of titanium consists of titanium 6; chlorine 3·6.

Perchloride of titanium consists of titanium 6·66; chlorine 7·94. *Annales de Chim.* xxiii. 353. *Annals of Phil.* N. S. &c.

**TITANIDES**, the sons of Titan; the giants who warred against the gods.

**TITANITES**. This name has been given to certain ores of titanium containing that metal in the state of oxide. See the following article.

**TITANIUM**. The Rev. Mr. Gregor discovered in a kind of ferruginous sand, found in

the vale of Menachen, in Cornwall, what he supposed to be the oxide of a new metal, but was unable to reduce. Klaproth, afterward analyzing what was called the red schorl of Hungary, found it to be the pure oxide of a new metal, which he named titanium, and the same with the menachanite of Mr. Gregor. Since that, oxide of titanium has been discovered in several fossils.

We do not know that titanium has been completely reduced, except by Lampadius, who effected it by means of charcoal only. The oxide he employed was obtained from the decomposition of gallate of titanium by fixed alkali. The metal was of a dark copper color, with much metallic brilliancy, brittle, and in small scales considerably elastic. It tarnishes in the air, and is easily oxidised by heat. It then acquires a bluish aspect. It detonates with nitre, and is highly infusible. All the dense acids act upon it with considerable energy. According to Vauquelin, it is volatilised by intense heat.

Certain small cubes occasionally observed in iron slag had generally been regarded as pyritical; but, upon minute inspection, Dr. Wollaston observed that neither their color, crystallisation, nor hardness, were those of pyrites. The crystals are striated. Purified from iron by muriatic acid, they are insoluble in muriatic, nitric, nitro-muriatic, and sulphuric acids. Their perfect solution may be effected by the combined action of nitre and borax, since the latter dissolves the oxide as fast as it is formed, and presents a succession of clear surfaces for fresh oxidation. But, as these salts do not unite by fusion, the addition of soda, as a medium of union, shortens the process. The fused mass becomes opaque on cooling by the deposition of a white oxide, which may either be previously freed of the salts by boiling water, and then dissolved in muriatic acid, or the whole mass may be at once dissolved together. In either case alkalis precipitate from the solution of a white oxide, which is not soluble by excess of alkali either pure or carbonated. By evaporating the muriatic solution of the oxide to dryness, at the heat of boiling water, it is freed of any redundant acid, and the muriate which remains is perfectly soluble in water, and in a state most favorable for exhibiting the characteristic properties of the metal. Infusion of galls gives the well known red color of gallate of titanium. The color occasioned by prussiate of potash is also red, differing from prussiate of copper, by inclining to orange instead of purple, while the color of prussiate of uranium is rather brown than red.

The above crystals are perfect conductors of electricity. Titanium shows no affinity for iron; and it seems equally indisposed to unite with every other metal that Dr. Wollaston tried. The specific gravity of the metallic titanium is 5·3; and it is so hard as to scratch agate. Dr. Wollaston, in *Philosophical Transactions*, for 1823.

M. Rose obtained oxide of titanium by fusing powdered rutile with thrice its weight of carbonate of potash, dissolving the compound in muriatic acid, precipitating by caustic ammonia, digesting the precipitate for a certain time with



hydrosulphuret of ammonia, and finally digesting the solid matter left in weak muriatic acid, which leaves the oxide of titanium pure. In this way only, as yet, can the iron be removed. The pure oxide remains perfectly white when heated and cooled, and is then untouched by acids. Fused with carbonate of potash, and then treated with muriatic acid, it sometimes gelatinises, though not so strongly as silica. It becomes red by touching moist litmus, and with alkalies acts precisely as an acid. It has therefore been called by M. Rose titanic acid. There are no salts with base of titanic acid; those that have been taken for such resulted from the presence of alkali in the titanic acid.

The native red oxide is insoluble in the sulphuric, nitric, muriatic, and nitro-muriatic acids; but, if it be fused with six parts of carbonate of potash, the oxide is dissolved with effervescence. The sulphuric solution when evaporated becomes gelatinous; the nitric affords rhomboidal crystals by spontaneous evaporation, but is rendered turbid by ebullition; the muriatic becomes gelatinous, or flocculent, by heat, and transparent crystals form in it when cooled; but, if it be boiled, oxygenised muriatic acid gas is evolved, and a white oxide thrown down. Phosphoric and arsenic acids take it from the others, and form with it a white precipitate. These precipitates are soluble in muriatic acid, but in no other.

The solutions of titanium give white precipitates with the alkalies, or their carbonates; tincture of galls gives a brownish-red, and prussiate of potash a brownish yellow. If the prussiate produce a green precipitate, this, according to Lowitz, is owing to the presence of iron. Zinc immersed in the solutions changes their color from yellow to violet, and ultimately to an indigo; tin produces in them a pale red tint, which deepens to a bright purple red. Hydrosulphuret of potash throws down a brownish-red precipitate, but they are not decomposed by sulphureted hydrogen.

By exposing phosphate of titanium, mixed with charcoal and borax, to a violent heat, in a double crucible luted, M. Chenevix obtained a pale white phosphuret, with some lustre, brittle, of a granular texture, and not very fusible. The oxides of iron and titanium, exposed to heat with a little oil and charcoal, produce an alloy of a gray color, intermixed with brilliant metallic particles of a golden yellow. Oxide of titanium was used to give a brown or yellow color in painting on porcelain, before its nature was known; but it was found difficult to obtain from it a uniform tint, probably from its not being in a state of purity.

**TITBIT**, *n. s.* Properly tidbit; tid, tender, and bit.—Johnson. Nice bit; nice food.

John pampered esquire South with *tibits* till he grew wanton. *Arbutnot.*

**TITCHFIELD**. See **TICFIELD**.

**TITHE**, *n. s., v. a., &* Sax. *teoða*, tenth.

**TITHEABLE**, *adj.* [*v. n.*] The tenth part; the

**TITHING**, *n. s.* } part legally assigned

**TITHINGMAN**. } to the maintenance of

the clergy; any small part or portion: titheable is subject to the payment of tithes: tithing, an

ancient division of this country into families by tens: the tithingman being a kind of constable responsible for their good behaviour: a tithing is also used for the tithe or priest's part.

When thou hast made an end of *tithing* all the *tithes* of thine increase, the third year, the year of *tithing*, give unto the Levite, stranger, fatherless, and widow. *Deuteronomy.*

For lambe, pig, and calf, and for other the like, *Tithe* so as thy cattle the lord do not strike. *Tusser.*

Though vicar be bad, or the parson be evil, Go not for thy *tithing* thyself to the devil. *Id.*

His hundred is not at his command farther than his prince's service; and also every *tithingman* may controul him. *Spenser.*

When I come to the *tithing* of them, I will *tithe* them one with another, and will make an Irishman the *tithingman*. *Id.*

Since the first sword was drawn about this question, Ev'ry *tithe* soul 'mongst many thousand dismes Hath been as dear as Helen. *Shakespeare.*

By decimation and a *tithed* death, If thy revenges hunger for that food Which nature loaths, take thou the destined tenth. *Id.*

Many have made witty invectives against usury; they say, that it is a pity the devil should have God's part, which is the *tithe*. *Bacon.*

Offensive wars for religion are seldom to be approved, unless they have some mixture of civil *tithes*. *Id.*

The popish priest shall, on taking the oath of allegiance to his majesty, be entitled to a tenth part or *tithe* of all things *titheable* in Ireland belonging to the papists, within their respective parishes. *Swift.*

**TITHES**, in ecclesiastical law, are defined to be the tenth part of the increase, yearly arising and renewing from the profits of lands, the stock upon lands, and the personal industry of the inhabitants: the first species being usually called predial, as of corn, grass, hops, and wood; the second mixed, as of wool, milk, pigs, &c., consisting of natural products, but nurtured and preserved in part by the care of man; and of these the tenth must be paid in gross; the third personal, as of manual occupations, trades, fisheries, and the like; and of these only the tenth part of the clear gains and profits is due.

We cannot ascertain the time when tithes were first introduced. The first mention of them, in any written English law, is a constitutional decree, made in a synod held A. D. 786, wherein the payment of tithes in general is strongly enjoined. This decree, which at first bound not the laity, was effectually confirmed by two kingdoms of the heptarchy, in their parliamentary conventions of estates, respectively consisting of the kings of Mercia and Northumberland, the bishops, dukes, senators, and people. The next authentic mention of them is in the *foedus* Edwardi et Guthruni; or the laws agreed upon between king Guthrun the Dane, and Alfred and his son Edward the elder, kings of England, about A. D. 900. There we find the payment of tithes enjoined, and a penalty added upon non-observance: which law is seconded by the laws of Athelstan, about A. D. 930. Upon their first introduction, though every man was obliged to pay tithes in general, yet he might give them to what priests he pleased; which were called arbitrary consecrations of tithes; or he might pay

them into the hands of the bishop, who distributed among his diocesan clergy the revenues of the church, which were then in common. But, when dioceses were divided into parishes, the tithes of each parish were allotted to its own particular minister; first by common consent or the appointments of lords of manors, and afterwards by the written law of the land. Arbitrary consecrations of tithes took place again afterwards, and were in general use till the time of king John. But they were prohibited by pope Innocent III., about A. D. 1209, in a decretal epistle sent to the archbishop. This epistle, says Sir Edward Coke, bound not the lay subjects of this realm; but, being reasonable and just, it was allowed of, and so become *lex terræ*.

Lands and their occupiers may be exempted from the payment of tithes, either in part or totally; 1st, By a real composition; or 2d, By custom or prescription. I. A real composition is when an agreement is made between the owner of the lands and the parson or vicar, with the consent of the ordinary and the patron, that such lands shall for the future be discharged from payment of tithes, by reason of some land or other real recompense given to the parson in lieu and satisfaction thereof. This was permitted by law, because it was supposed that the clergy would be no losers by such composition; since the consent of the ordinary, whose duty it is to take care of the church in general, and of the patron, whose interest it is to protect that particular church, were both made necessary to render the composition effectual: and hence have arisen all such compositions as exist at this day by force of the common law. But experience showing that even this caution was ineffectual, and the possessions of the church being by this and other means every day diminished, the disabling statute 13 Eliz. c. 10 was made; which prevents, among other spiritual persons, all parsons and vicars from making any conveyances of the estates of their churches, other than for three lives of twenty-one years. So that now, by this statute, no real composition made since the 13 Eliz. is good for any longer term than three lives of twenty-one years, though made by consent of the patron and ordinary: which has indeed effectually demolished this kind of traffic; such compositions being now rarely heard of, unless by authority of parliament. II. A discharge by custom or prescription is, where time out of mind such persons or such lands have been either partially or totally discharged from the payment of tithes. And this immemorial usage is binding upon all parties; as it is in its nature an evidence of universal consent and acquiescence, and with reason supposes a real composition to have been formerly made. This custom or prescription is either *de modo decimandi*, or *de non decimando*. A *modus decimandi*, commonly called by the simple name of a *modus* only, is where there is by custom a particular manner of tithing allowed, different from the general law of taking tithes in kind, which are the actual tenth part of the annual increase. This is sometimes a pecuniary compensation, as twopence an acre for the tithe of land; sometimes it is a compensation in work and labor, as

that the parson shall have only the twelfth cock of hay, and not the tenth, in consideration of the owner's making it for him: sometimes, in lieu of a large quantity of crude or imperfect tithe, the parson shall have a less quantity when arrived at greater maturity, as a couple of fowls in lieu of tithe-eggs, and the like. Any means, in short, whereby the general law of tithing is altered, and a new method of taking them is introduced, is called a *modus decimandi*, or special manner of tithing. A prescription *de non decimando* is a claim to be entirely discharged of tithes, and to pay no compensation in lieu of them. Thus the king by his prerogative is discharged from all tithes. So a vicar shall pay no tithes to the rector, nor the rector to the vicar for *ecclesia decimas non solvit ecclesiæ*. But these personal privileges (not arising from or being annexed to the land) are personally confined to both the king and the clergy; for their tenant or lessee shall pay tithes, though in their own occupation their lands are not generally tithable. And, generally speaking, it is an established rule, that in lay hands, *modus de non decimando non valet*. But spiritual persons or corporations, as monasteries, abbots, bishops, and the like, were always capable of having their lands totally discharged of tithes by various ways: as, 1. By real composition. 2. By the pope's bull of exemption. 3. By unity of possession; as when the rectory of a parish, and lands in the same parish, both belonged to a religious house, those lands are discharged of tithes by this unity of possession. 4. By prescription; having never been liable to tithes, by being always in spiritual hands. 5. By virtue of their order; as the knights templars, Cistercians, and others, whose lands were privileged by the pope with a discharge of tithes. Though, upon the dissolution of abbey-lands, by Henry VIII., most of these exemptions from tithes would have fallen with them, and the lands become tithable again, had they not been supported and upheld by the statute 31 Henry VIII. c. 13, which enacts that all persons who should come to the possession of the lands of any abbey then dissolved, should hold them free and discharged of tithes, in as large and ample a manner as the abbey themselves formerly held them. And from this original have sprung all the lands which being in lay hands do at present claim to be tithe-free; for if a man can show his lands to have been such abbey-lands, and also immemorially discharged of tithes by any of the means before-mentioned, this is now a good prescription *de non decimando*. But he must show both these requisites; for abbey-lands, without a special ground of discharge, are not discharged of course; neither will any prescription *de non decimando* avail in total discharge of tithes, unless it relates to such abbey-lands.

Dr. Smith observes (*Nature and Causes of the Wealth of Nations*, vol. iii.) that tithes, as well as other similar taxes on the produce of the land, are in reality taxes upon the rent, and, under the appearance of equality, are very unequal taxes; a certain portion of the produce being in different situations equivalent to a very different portion of the rent. In some very rich



lands the produce is so great that the one-half of it is fully sufficient to replace to the farmer his capital employed in cultivation, together with the ordinary profits of farming-stock in the neighbourhood. The other half, or, what comes to the same thing, the value of the other half, he could afford to pay as rent to the landlord, if there was no tithe. But, if a tenth of the produce is taken from him in the way of tithe, he must require an abatement of the fifth part of his rent, otherwise he cannot get back his capital with the ordinary profit. In this case the rent of the landlord, instead of amounting to a half, or five-tenths of the whole produce, will amount only to four-tenths of it. In poorer lands, on the contrary, the produce is sometimes so small, and the expense of cultivation so great, that it requires four fifths of the whole produce to replace to the farmer his capital with the ordinary profit. In this case, though there was no tithe, the rent of the landlord could amount to no more than one-fifth or two-tenths of the whole produce. But if the farmer pays one-tenth of the produce in the way of tithe, he must require an equal abatement of the rent of the landlord, which will thus be reduced to one-tenth only of the whole produce. Upon the rent of rich lands, the tithe may sometimes be a tax of no more than one-fifth part, or four shillings in the pound; whereas, upon that of poorer lands, it may sometimes be a tax of one-half, or of ten shillings in the pound. It is a great discouragement to the improvement of land, that a tenth part of the clear produce, without any deduction for the advanced expense of raising that produce, should be alienated from the cultivator of the land to any other person whatever. The improvements of the landlord and the cultivation of the farmer are both checked by this unequal tax upon the rent. The one cannot venture to make the most important, which are generally the most expensive improvements; nor the other to raise the most valuable, which are generally too the most expensive crops; when the church, which lays out no part of the expense, is to share so very largely in the profit. When, instead either of a certain portion of the produce of land, or of the price of a certain portion, a certain sum of money is to be paid in full compensation for all tax or tithe; the tax becomes, in this case, exactly of the same nature with the land-tax of England. It neither rises nor falls with the rent of the land. It neither encourages nor discourages improvement. The tithe in the greater part of those parishes which pay what is called a *modus in lieu* of all other tithes is a tax of this kind. Some have proposed, as a better method for raising a revenue for the clergy, to lay an equivalent tax upon all estates, cultivated or not cultivated. It is well known, and has often been lamented, even by the clergy themselves, that this method of raising a revenue for their subsistence, is a continual source of dispute between the clergy and their parishioners, and contributes to obstruct the usefulness of their ministry. In Holland, and some other Protestant countries, the civil magistrates have adopted what some have thought a better plan, by allowing their ministers a fixed stipend, paid out of the public funds. In effect,

for the first 300 years after Christ, no mention is made in all ecclesiastical history of any such thing as tithes; though, in that time, altars and oblations had been recalled, and the church had miserably judaised in many other things. The churchmen confessedly lived all that time on free-will offerings: nor could the defect of paying tithes be owing to this, that there were wanting civil magistrates to enjoin it; since Christians, having lands, might have given out of them what they pleased; and the first Christian emperors, who did all things by advice of the bishops, supplied what was wanting to the clergy, not out of tithes, which were never proposed, but out of their own imperial revenues.

**TITHING.** Anciently no man was suffered to abide in England above forty days, unless he were enrolled in some tithing.—One of the principal inhabitants of the tithing was annually appointed to preside over the rest, being called the tithing-man, the head-borough, and in some countries the horse-holder, or borough's calder, being supposed the discreetest man in the borough town, or tithing. The distribution of England into tithings and hundreds is owing to king Alfred.

**TITHING-MEN** are a kind of petty constables, elected by parishes, and sworn into their offices in the court-leet, and sometimes by justices of the peace, &c.

**TITHONUS**, in fabulous history, the son of Laomedon king of Troy, was beloved by Aurora, who carried him to Delos, thence to Ethiopia, and at last to heaven, where she prevailed on the Destinies to bestow upon him the gift of immortality; but forgot to add that of youth. At last Tithonus grew so old that he was obliged to be rocked to sleep like an infant; when Aurora transformed him into a grasshopper; which renews its youth by casting its skin, and in its chirping retains the loquacity of old age.

**TITIAN**, or **TITTIANO** (Vecelli), the most universal genius for painting of all the Lombard school, the best colorist of all the moderns, and the most eminent for histories, portraits, and landscapes, was born at Cadore, in Friuli, in the late state of Venice, in 1477, or in 1480 according to Vasari and Sandrart. His parents sent him at ten years of age to one of his uncles at Venice, who, finding that he had an inclination to painting, put him to the school of John Bellino. But as soon as Titian had seen the works of Giorgione, he preferred his manner and became his disciple; and he followed him in his practice so successfully that several of the paintings of Titian were taken for the performances of Giorgione; and this success inspired that artist with such invincible jealousy that he broke off their connexion for ever. The reputation of Titian rose rapidly; every new work contributed to extend his fame through all Europe; and he was considered as the principal ornament of the age. Charles V. enriched him by repeated bounties, conferred on him the honor of knighthood, and sat for his portrait several times. The excellence of Titian was not so remarkably apparent in the historical compositions which he painted, as in his portraits and landscapes, which seem to be superior to all competition; and even to this

day many of them preserve their original beauty, being as much the admiration of the present age as they have deservedly been of the ages past. It would prove almost an endless task to enumerate the variety of works executed by this illustrious artist, at Rome, Venice, Bologna, and Florence, in other cities of Italy, in England, Spain, Germany, and France. He was of so happy a constitution, that he was never ill till 1576, when he died of the plague, at ninety-nine years of age. His disciples were Paul Veronese, James Tintoret, James de Porte Bassano, and his sons.

**TITICACA**, a lake of South America, in the viceroyalty of Buenos Ayres. It is situated in the plains that lie between the two Cordilleras, in the north-western part of the province of Los Charcas, and is the most considerable of all the lakes of South America. Its figure is irregular, but inclining to oval, and its principal direction north-west and south-east. In circumference it is about 240 miles, and in some parts from seventy to eighty fathoms in depth. It is navigated by ships, but is subject to storms and tremendous gusts of wind descending from the mountains. The first ship that the Spaniards built upon it was immediately driven on shore, and destroyed by a violent squall; and this was considered as so ominous that many years elapsed before another was constructed. Ten or twelve rivers, and a number of small streams, empty themselves into it.

**TITICACA**, a large island in the above lake. It is three leagues long, one wide, and five in circumference, and about one mile from the shore. It was mountainous and uncultivated, but was greatly improved by the Incas. The soil is fertile, and the climate mild.

**TITILLATE**, *v. n.* } *Lat. titillo.* To tickle:

**TITILLATION**, *n. s.* } the act of tickling or state of being tickled.

Tickling causeth laughter; the cause may be the emission of the spirits, and so of the breath, by a flight from titillation. *Bacon.*

The delights which result from these nobler entertainments, our cool thoughts need not be ashamed of, and which are dogged by no such sad sequels as are the products of those titillations that reach no higher than the senses. *Glanville.*

In sweets, the acid particles seem so attenuated in the oil as only to produce a small and grateful titillation. *Arbutnot.*

Just where the breath of life his nostrils drew,  
A charge of snuff the wily virgin threw;  
The gnomes direct to ev'ry atom just  
The pungent grains of titillating dust. *Pope.*

**TITIVS** (Septimius), a poet of the Augustan age, famous for his lyric and tragic poems, which are celebrated by Horace (i. ep. 3. v. 9); but now lost.

**TIT'LARK**, *n. s.* From **TIT**, which see. A small bird.

The smaller birds do the like in their seasons; as the laverock, titlark, and linnet. *Walton.*

**TITLARK**, in ornithology. See **ALAUDE**.

**TITLE**, *n. s.* & *v. a.* } Old Fr. *telle*; *Lat.*

**TITLELESS**, *adj.* } *titulus.* A general head

**TITLEPAGE**, *n. s.* } comprising particulars:

hence a statement of right; right; appellation,

name; honor; first page of a book: as a verb active, to entitle; call: titleless, without a title. titlepage, the page containing the title of a book.

Let the *title* of a man's right be called into question; are we not bold to rely and build upon the judgment of such as are famous for their skill in the laws? *Hooker.*

To leave his wife, to leave his babes,  
His mansion, and his *titles*, in a place  
From whence himself does fly? *Shakspeare.*

This man's brow, like to a *title* leaf,  
Foretels the nature of a tragic volume. *Id.*

He was a kind of nothing, *titleless*,  
Till he had forged himself a name o' the fire  
Of burning Rome. *Id.*

Three draw the experiments of the former four into *titles* and tables for the better drawing of observations; these we call compilers. *Bacon.*

Man over men  
He made not lord: such *title* to himself  
Reserving. *Milton.*

To these, that sober race of men, whose lives.  
Religious *titled* them the sons of God,  
Shall yield up all their virtue, all their fame,  
Ignobly! *Id.*

Among the many preferences that the laws of England have above others, I shall single out two particular *titles*, which give a handsome specimen of their excellencies above other laws in other parts or *titles* of the same. *Hale.*

If there were no laws to protect them there were no living in this world for good men; and in effect there would be no laws, if it were a sin in them to try a *title*, or right themselves by them. *Kettleworth.*

To revenge their common injuries, though you had an undoubted *title* by your birth, you had a greater by your courage. *Dryden.*

We should have been pleased to have seen our own names at the bottom of the *titlepage*. *Id.*

Is a man impoverished by purchase? it is because he paid his money for a lye, and took a bad *title* for a good. *South.*

Conti would have kept his *title* to Orange. *Addison.*

Our adversaries encourage a writer who cannot furnish out so much as a *title page* with propriety. *Swift.*

O the discretion of a girl! she will be a slave to any thing that has not a *title* to make her one. *Southern.*

Others with wishful eyes on glory look,  
When they have got their picture towards a book;  
Or pompous *title*, like a gaudy sign  
Meant to betray dull sots to wretched wine. *Young.*

**TITLE**, in law, denotes any right which a person has to the possession of a thing, or an authentic instrument whereby he can prove his right. See the articles **RIGHT**, **PROPERTY**, &c.

**Titles** were not so common among the ancient Greeks or Romans as they are in modern times. Till the reign of Constantine, the title of Illustrious was never given except to those who were distinguished in arms or letters: but at length it became hereditary in the families of princes, and every son of a prince was illustrious. The title of highness was formerly only given to kings. The kings of England, before the reign of Henry VIII., were addressed by the title of your grace. That monarch first assumed the title of highness, and afterwards that of majesty. The title of majesty was first given him by Francis I., in their interview in 1520. Charles V. was the first



king of Spain who assumed the same title. Princes, nobles, and clergy, generally have one title derived from their territories and estates, and another derived from their rank or from some other remarkable circumstance. The pope has the title of holiness. A cardinal is entitled eminent, or most eminent. An archbishop is addressed his grace, and most Reverend; a bishop has the title of his Lordship, and Right Reverend. Inferior clergymen are Reverend. To an emperor is given the title of Imperial Majesty; to kings, that of Majesty; to the princes of Great Britain, Royal Highness; to those of Spain and Portugal, Infant; to electors, Electoral Highness; to the princes of Italy and Germany, Highness; to the ci-devant Doge of Venice, Most Serene Prince; to the grand master of Malta, Eminence; to nuncios, and ambassadors of crowned heads, Excellency; to dukes, Grace; to marquisses, earls, and barons, Lordship. The emperor of China, among his titles, takes that of Tien Su, 'Son of Heaven.' The Orientals, it is observed, are exceedingly fond of titles; the simple governor of Schiras, for instance, after a pompous enumeration of qualities, lordships, &c., adds the titles of Flower of Courtesy, Nutmeg of Consolation, and Rose of Delight.

**TITLE TO THE CROWN**, in the British Constitution. See **SUCCESSION**.

**TITLEY** (Walter), esq., born about 1700, was educated at Westminster, where he was patronised by bishop Atterbury, who made him tutor to his son, and kept him in his family, till the time of the reported plot in 1722. He afterwards studied at Trinity College, Cambridge. He was sent envoy to Copenhagen, where he died after a long residence, much esteemed for his amiable qualities. He published several pieces, rather elegant than scientific.

**TITMOUSE**, or **TIT**, *n. s.* See **TIT**. A small species of birds.

The nightingale is sovereign of song,  
Before him sits the titmouse silent by,  
And I unfit to thrust in skilful throng,  
Should Colin make judge of my foolerie. *Spenser.*

The titmouse and the pecker's hungry brood,  
And Progne with her bosom stained in blood.

*Dryden.*

**TITORMUS**, a shepherd of Ætolia, famous for his prodigious strength. He was contemporary with Milo of Crotona, whom he excelled, as he lifted on his shoulders a large rock which Milo could with difficulty move.—*Ælian.* 12, 22; *Herod.* vi. 127.

**TITTER**, *v. n.* Formed, I suppose, from the sound.—*Johnson.* To laugh with restraint: laugh without much noise.

From wheat go and rake out the titters or tine;  
If care be not forth, it will rise again fine. *Tusser.*  
In flowed at once a gay embroidered race,  
And tittering pushed the pedants off the place.

*Pope.*

**TITTLE**, *n. s.* Diminutive of tit. A small particle; point; dot.

In the particular which concerned the church,  
the Scots would never depart from a tittle.

*Clarendon.*

Angels themselves disdain  
"approach thy temple, give thee in command

What to the smallest tittle thou shalt say

To thy adorers.

*Milton.*

They thought God and themselves linked in so fast a covenant, that, although they never performed their part, God was yet bound to make good every tittle of his.

*South.*

You are not advanced one tittle towards the proof of what you intend.

*Waterland.*

Ned Fashion hath been bred about court, and understands to a tittle all the punctilios of a drawing-room.

*Swaifs.*

**TITTLETATTLE**, *n. s.* A word formed from tattle by a ludicrous reduplication. Idle talk; prattle; gabble.

You are full in your tittletatlings of Cupid: here is Cupid, and there is Cupid: I will tell you now what a good old woman told me.

*Sidney.*

As the foe drew near

With love, and joy, and life and dear;

Our don, who knew this tittletattle,

Did, sure as trumpet, call to battle.

*Prior.*

For every idle tittletattle that went about, Jack was suspected for the author.

*Arbutnot.*

**TITULAR**, *adj.*

*Fr. titulaire*, from

**TITULARITY**, *n. s.*

*Lat. titulus*. Nomi-

**TITULARY**, *adj. & n. s.* *nal*; having or conferring only the title: the derivatives corresponding.

They would deliver up the kingdom to the king of England to shadow their rebellion, and to be titular and painted head of those arms.

*Bacon.*

The malecontents of his kingdom have not been base nor titular impostors, but of an higher nature.

*Id.*

Thrones, virtues, powers,

If these magnific titles yet remain,

Not merely titular.

*Milton.*

Julius, Augustus, and Tiberius, with great humility received the name of Imperator; but their successors retain the same even in its titularity.

*Brownie.*

Both Valerius and Austin were titular bishops.

*Auliffe.*

The persons deputed for the celebration of these masses were neither titularies nor perpetual curates, but persons entirely conductitious.

*Id.*

**TITURIUS**, a lieutenant of Julius Cæsar, in Gaul, who was killed by Ambiorix.—*Cæs. de B. G. v.* 29, &c.

**TITUS**, a prænomen in very general use among the ancient Romans, which seems to have been first introduced among them by king

**TITUS** (Tatius), the colleague of Romulus. See **ROME**.

**TITUS**, in church history, a celebrated evangelist, a Greek by birth, and a convert of St. Paul, who wrote a letter to him, which is still extant. See **SCRIPTURE**.

**TITUS VESPASIANUS**, the Roman emperor, the son of Vespasian; of whom it is related that, not being able to recollect any remarkable good action he had done on a certain day, he exclaimed, 'I have lost a day.' Though Rome labored under various public calamities during his reign, such was his equitable and mild administration that he constantly preserved his popularity. He was a great lover of learning, and composed several poems. He reigned but two years, and it is thought Domitian his brother poisoned him, A. D. 81, aged forty-one. See **ROME**.

**TITYRUS**, a large mountain of Crete.

K 2

**TITYUS**, in the mythology, a famous giant, the son of Jupiter by Elara, the daughter of Orchomenos, who died in travail of him, from his vast size. Tityus attempted to ravish Latona, but she called to her aid her children, Apollo and Diana, who with their arrows killed the monster. His corpse covered nine acres; and in Tartarus he was condemned to have his liver continually gnawed by serpents and vultures.—Apollod. Hom. &c.

**TIVERTON**, a neat incorporated borough town of England, in Devonshire, with a considerable market on Tuesday, and a lesser one on Saturday. It is most agreeably situated between the conflux of two rivers, the Exe and the Lowman. Over the former it has an elegant stone bridge, and on the opposite side of the town terminates the grand Western Canal. St. Peter's church, first built in 1073, is a fine edifice, adjoining which is the castle, the ancient seat of the earls of Devon. The new church is a much later building, besides which it has several other places of worship, and three well-endowed almshouses. In the centre of the town is a spacious market-place. It has a noble grammar school, founded in 1604, by Peter Blundell, and a most extensive lace manufactory. The town has been nearly destroyed by fire at different times; it has about 10,000 inhabitants, and lies fourteen miles N.N.E. of Exeter, and 176 west by south of London, and sends two members to parliament.

**TIVOKEA**, a low and sandy island of the South Pacific, of an elliptic form, eighteen miles in its longest diameter. There is a lagoon in the centre, which is entered from the south-west end of the island. Trees and shrubs are numerous, but the soil is extremely scanty, consisting of a very thin covering of mould, over a low coral foundation. The inhabitants are stout made, of a dark brown, and puncture or tattoo themselves with the figures of fishes. Their language approaches the Otaheitan dialect, but is more guttural. Their arms are clubs and spears. Long. 144° 56' W., lat. 14° 28' S.

**TIVOLI** (the ancient Tibur), a large town of Central Italy, about eighteen miles east by north of Rome. It is situated on an eminence sheltered on one side by Monte Castali and a circular range of the Sabine mountains, while on the other it commands an extensive and delightful prospect over the Campagna di Roma. The sides of the hill are covered with olives and fruit trees; but its great attraction consists, as in former ages, in the falls of the Teverone (the ancient Anio), which glides gently through the town, till it reaches the brink of a rock over which it precipitates itself nearly 100 feet in one mass, and then rushes through a chasm of the rock into a cavern. On the summit stands a beautiful temple of the Corinthian order, supposed to have been dedicated to Vesta in the Augustan age. Its form is circular, and its proportions very accurate; but, of its eighteen columns, there remain only ten, with their entablatures. Near it are the remains of another temple, consisting now of only four pillars, and forming part of the wall of a modern church. At Tivoli are also the remains of several Roman villas, in particular of the Villa Adriana, remarkable for its extent and

magnificence. The town has a population of nearly 14,000, and contains a cathedral and several churches. The neighbourhood affords quarries of excellent stone. Not far distant is the remarkable little lake of Solfatara.

**TIVY**, *adj.* A word expressing speed, from tantivy, the note of a hunting-horn.

In a bright moon-shine while winds whistle loud  
*Tivy, tivy, tivy*, we mount and we fly,  
All rocking in a downy white cloud:  
And lest our leap from the sky should prove too far,  
We slide on the back of a new-falling star.

*Dryden.*

**TLATELOLCO**, an ancient kingdom of Mexico, which was conquered, and annexed to the Mexican empire, by Montezuma I.

**TLAXCALLA**, or **TLASCALLA**, a government of Mexico, in the intendency of Puebla de los Angeles. It is about 354 miles in length, and from forty to fifty broad, containing upwards of 50,000 inhabitants. The capital, of the same name, stands on the bank of a small river which runs into the Pacific Ocean, and, though it was once an immense place, does not now contain more than 3400 inhabitants.

**TLEMSAN**, or **TREMECEN**, the most westerly of the three provinces into which Algiers is divided. On the north it has the Mediterranean, on the east the province of Titterie, on the west the river Mulluvia separating it from Fez, while on the south a continuation of the chain of Atlas divides it from the Bled el Jereede. Besides the capital it contains the important sea-port of Oran.

**TLEMSAN**, or **TREMECEN**, a city of Algiers, capital of the above province, was once an important place, and the metropolis of a kingdom; but in 1670, on occasion of a revolt of the inhabitants, Hassan, then dey of Algiers, laid it in ruins; so that there does not now remain above one-sixth part of the old city: when entire, it might have been four miles in circuit. It is placed on a rising ground, below some rocky precipices, whence issue a number of springs, and it contains several Roman remains. It is twenty-two miles W. S. W. of Algiers, and fifty S. S. W. of Oran.

**TLEPOLEMUS**, the son of Hercules, by Asytocchia, born at Argos. Having accidentally killed Licymnius, he fled from Argos to Rhodes, where, by order of the oracle, he was chosen king of the island. He afterwards went to the Trojan war with nine ships; but was killed by Sarpedon. Games were instituted at Rhodes in honor of him.

**TMARUS**, a mountain of Epirus, in Thesprotia.—Strab. Plin.

**TMESIS**, in Latin grammar, a figure, whereby a compound word is divided, and one or more words thrown in between the first and last parts of it: as, Septem subjecta trioni gens (Virg.), for septentrioni. Quæ meo cunque animo, &c. (Cic.) for Quæcunque.

**TMOLUS**, a king of Lydia, the first husband of Chthonia Omphale, the son of Sipylus, and Chthonia, after whom a mountain of Lydia was so named.

**TO**, *adv. & prep.* Sax. *to*: Belg. *toe*, *te*: Goth. *ta*; Arab. and Pers. *ta* A particle noting a



second verb as the object of a first; noting therefore intention; consequence; futurity; motion: as a preposition it is opposed to *from*, and has often the sense of *at*, with *towards*, *unto*, *as far as*; before *day* it denotes the present day; before *night*, the present or next coming night; before *morrow*, the next coming morrow; *to and fro*—*to and again*—mean, backwards and forwards; the other modifications will appear sufficiently from the extracts.

Twenty to one offend more in writing too much than too little; even as twenty to one fall into sickness rather by overmuch fulness than by any lack.

Ascham.

With that she *to* him afresh, and surely would have put out his eyes.

Sidney.

Enoch, whose days were, though many in respect of ours, yet scarce as three to nine, in comparison of theirs with whom he lived.

Hooker.

The lawless sword his children's blood shall shed, Increased for slaughter, born to beg their bread.

Sandys.

We ready are *to* try our fortunes

To the last man.

Shakespeare.

Tybalt fled;

But by and by comes back to Romeo,

And *to* 't they go like lightning.

Id.

To you, my noble lord of Westmoreland,

— I pledge your grace.

Id.

Take you some company, and away to horse.

Id.

I trust, I may not trust thee; for thy word

Is but the vain breath of a common man:

Believe me, I do not believe thee, man;

I have a king's oath to the contrary.

Id.

Banquo, thy soul's flight,

If it find heaven, must find it out *to night*.

Id.

*To morrow*, and *to morrow*, and *to morrow*;

Creeps in this petty pace from day *to* day;

And all our yesterdays have lighted fools

The way to dusky death.

Id.

Factions carried too high are much *to* the prejudice of the authority of princes.

Bacon.

With a funnel filling bottles; *to* their capacity they will all be full.

Ben Jonson.

Dismay bindeth and looseth souls condemned *to* woe;

And sends the devils on errands *to and fro*.

Fairfax.

From the beginning *to* the end all is due to supernatural grace.

Hammond.

The rabbins subtly distinguish between our duty *to* God, and *to* our parents.

Holyday.

*To day* is ours, why do we fear?

*To day* is ours, we have it here;

Let's banish bus'ness, banish sorrow,

*To* the gods belongs *to morrow*.

Cowley.

Wisdom he has, and *to* his wisdom courage;

Temper *to* that, and unto all success.

Denham.

By the disorder in the retreat, great numbers were crowded *to* death.

Clarendon.

The spirits perverse

With easy intercourse pass *to and fro*,

*To* tempt or punish mortals.

Milton.

Thus they with sacred thought

Moved on in silence *to* soft pipes.

Id.

*To day* they chased the boar.

Orway.

Ingenious *to* their ruin, every age

Improves the act and instruments of rage.

Waller.

This weather-glass was so placed in the cavity of a small receiver, that only the slender part of the pipe, *to* the height of four inches, remained exposed *to* the open air.

Boyle.

There is no fool *to* the sinner, who every moment ventures his soul.

Tillotson.

This lawfulness of judicial process appears from these legal courts erected to minister *to* it in the apostle's days.

Kettleworth.

To prevent the aspersion of the Roman majesty, the offender was whipt *to* death.

Dryden.

Urged by despair, again I go *to* try

The fate of arms, resolved in fight *to* die.

Id.

Now, *to* you, Raymond: can you guess no reason

Why I repose such confidence in you?

Id.

*To morrow* will deliver all her charms

Into my arms, and make her mine for ever.

Id.

Some Americans, otherwise of quick parts, could not count *to* one thousand, nor had any distinct idea of it, though they could reckon very well *to* twenty.

Locke.

Had the methods of education been directed to their right end, this so necessary could not have been neglected.

Id.

I'll *to* the woods, among the happier brutes:

Come, let's away.

Smith.

The winds in distant regions blow,

Moving the world of waters *to and fro*.

Addison.

When an ambassador is dispatched *to* any foreign state, he shall be allowed *to* the value of a shilling a day.

Id.

A British king obliges himself by oath *to* execute justice in mercy, and not *to* exercise either *to* the total exclusion of the other.

Id.

The effects of such a division are pernicious *to* the last degree, not only with regard *to* those advantages which they give the common enemy, but *to* those private evils which they produce in every particular.

Spectator.

For what *to morrow* shall disclose,

May spoil what you *to night* propose:

England may change, or Cloe stray;

Love and life are *for to day*.

Prior.

Masses of marble, originally beat off from the strata of the neighbouring rocks, rolled *to and again* till they were rounded *to* the form of pebbles.

Woodward.

This ought rather *to* be called a full purpose of committing sin *to day*, than a resolution of leaving it *to morrow*.

Culamy.

Coffee exhales in roasting *to* the abatement of near one fourth of its weight.

Arbuthnot.

Dress it not till the seventh day, and then move the joint *to and fro*.

Wiseman.

Still a greater difficulty upon translators rises from the peculiarities every language hath *to* itself.

Felton.

It is not blood and bones that can be conscious of their own hardness and redness; and we are still *to* seek for something else in our frame that receives those impressions.

Bentley.

I have done my utmost *to* lead my life so pleasantly as *to* forget all misfortunes.

Pope.

Supposing them *to* have an equal share, the odds will be three *to* one on their side.

Swift.

It must be confessed, *to* the reproach of human nature, that this is but *to* just a picture of itself.

Broome.

The mind, when turned adrift, no rules *to* guide, Drives at the mercy of the wind and tide;

Fancy and passion toss it *to and fro*,

A while torment, and then quite sink in woe.

Young.

TOAD, *n. s.*

Sax. *tae*. A well-known

TOAD-STONE, } animal, accounted venomous

TOAD-STOOL, } without reason: toadstone is a

concretion found in the toad's head: toadstool, a fungus resembling the mushroom.

The grisly toadstool, grown there mought I see,  
And loathing paddocks lording on the same.

Spenser.

Sweet are the uses of adversity,  
Which, like the toad, ugly and venomous,  
Bears yet a precious jewel in its head. *Shakspeare.*

In the great plague there were seen, in divers  
ditches about London, many toads that had tails  
three inches long, whereas toads usually have no  
tails. *Bacon.*

Another imperfect plant, like a mushroom, but  
sometimes as broad as a hat, called toadstool, is not  
esculent. *Id.*

The toadstone, presumed to be found in the head of  
that animal, is not a thing impossible. *Browne.*

In hollow caverns vermin make abode,  
The hissing serpent, and the swelling toad. *Dryden.*

TOAD, in zoology. See RANA.

TOAD-FISH. See LOPHIUS.

TOAD-FLAX, in botany. See ANTIRRHINUM.

TOAD-STONE, in the old mineralogy, a genus  
of argillaceous earths, examined by Dr. Wither-  
ing. He describes it as of a dark brownish gray  
color; its texture granular; neither effervescing  
with acids, nor striking fire with steel. The  
cavities of it are filled with crystallised spar, and  
in a strong heat it is fusible per se; 100 parts  
of it contain from 56 to 63.5 of siliceous earth,  
nearly 15 of argillaceous earth, 7.5 of calcareous  
earth, and 16 of oxidated iron. Dr. Kirwan  
observes that the toad-stone is not much differ-  
ent from basaltes, only that it is softer; it con-  
tains also a smaller proportion of iron, and a  
larger one of siliceous earth.

Whitehurst, in his Theory of the Earth, has  
given a particular account of the Derbyshire  
toad-stone; and has stated the number of beds,  
and the thickness of each, with that of the moun-  
tain lime-stone, with which it alternates, as  
under:—

|                   |                  |
|-------------------|------------------|
| First lime-stone  | 50 yards.        |
| First toad-stone  | 16               |
| Second lime-stone | 50               |
| Second toad-stone | 46               |
| Third lime-stone  | 60               |
| Third toad-stone  | 22               |
| Fourth lime-stone | not cut through. |

It appears, however, that the thickness and  
extent of the toad-stone beds are by no means  
so regular as those of the other strata, in the same  
district.

In some situations, one or more of the beds  
will become very thin, or be entirely wanting;  
in other situations, a single bed will be found of  
vast thickness: and masses of this substance,  
which cannot be referred to any of the three  
beds, will be found interposed in the lime-stone  
strata. In some instances, particularly near  
Ashover, nodules of lime-stone may be seen im-  
bedded in toad-stone. Farey's Derbyshire Report,  
vol. i. p. 276. The most remarkable phenome-  
non which the beds of toad-stone present in  
Derbyshire, is the complete separation of the  
metallic veins which they occasion.

TOAST, *v. a. & n. s.* Lat. *torreo, tostum.*

TOASTER, *n. s.* { To dry or heat at the  
fire; to name when a health is drunk, which Mr.  
Thomson derives from Sax. *toarret*, to conse-  
crate: any thing so dried; a person so named:  
a toaster, he who toasts.

You are both as pneumatick as two dried toasts;  
you cannot one bear with another's infirmities.

Shakspeare.

Every third day take a small toast of manchet,  
dipped in oil of sweet almonds new drawn, and  
sprinkled with loaf sugar. *Bacon.*

The earth whereof the grass is soon parched with  
the sun, and toasted, is commonly forced earth. *Id.*

To allure mice I find no other magick than to  
draw out a piece of toasted cheese. *Browne.*

I shall likewise mark out every toast, the club in  
which she was elected, and the number of votes that  
were on her side. *Addison.*

Several popish gentlemen toasted many loyal  
healths. *Id.*

We'll try the empire you so long have boasted:  
And, if we are not praised, we'll not be toasted.

Prior.

We simple toasters take delight

To see our women's teeth look white;

And every saucy ill-bred fellow

Sneers at a mouth profoundly yellow. *Id.*

Say, why are beauties praised, and honoured most,  
The wise man's passion, and the vain man's toast?

Why decked with all that land and sea afford,  
Why angels called, and angel-like adored? *Pope.*

Some squire, perhaps, you take delight to rack;  
Whose game is whisk, whose treat a toast in sack.

Id.

TOB, a small district in the south-east of Sy-  
ria, to which Jephthah retired, when expelled  
from his native country by his brethren. *Jud.*  
xi. 3, 5.

TOBACCO, *n. s.* From Tobacco or Tobago,  
in America.—Johnson. Rather from *tabaca*, the  
American name of the tube used in smoking. A  
plant. See below.

It is a planet now I see;

And, if I err not, by his proper

Figure, that's like a tobacco-stopper. *Hudibras.*

Bread or tobacco may be neglected; but reason at  
first recommends their trial, and custom makes them  
pleasant. *Locke.*

Salts are to be drained out of the clay by water,  
before it be fit for the making tobacco-pipes or bricks.

Woodward

The flower of the tobacco consists of one leaf, is  
funnel-shaped, and divided at the top into five deep  
segments, which expand like a star; the ovary be-  
comes an oblong roundish membranous fruit, which  
is divided into two cells by an intermediate partition,  
and is filled with small roundish seeds. *Miller.*

Tobacco, in botany. See NICOTIANA.

Tobacco. The following directions are given  
by Dr. Barham for raising, and cultivating, and  
curing, tobacco in Jamaica:—Let the ground or  
woodland for planting tobacco be well burned,  
as the greater the quantity of wood-ashes the bet-  
ter. The spot must be well strewed with ashes,  
laid smooth and light; then blow the seed from  
the palm of the hand gently on the bed, and cover  
it with palm or plantain leaves. When the  
plants are about four inches high, draw them  
and plant them out about three feet asunder; and,  
when they become as high as one's knee, cut or  
pluck off the top; and, if there are more than  
twelve leaves on the plant, take off the overplus,  
and leave the rest entire. The plant should now  
be daily attended to, to destroy the caterpillars  
that infest it; as also to take off every sprout or  
sucker that puts out at the joints, in order to  
throw the whole vegetable nourishment into the



large leaves. When the edges and points of the leaves begin to turn yellow, cut down the stalks about 10 A. M. on a fine day, and see that the dew is fully off the plant, and do not continue this work after 2 P. M. As fast as it is cut, let it be carried into the tobacco-house, which must be so close as to shut out all air (on this much depends), and hung up on lines tied across for the purpose of drying. When the stalks begin to turn brownish, take them off the lines, and put them in a large binn, and lay on them heavy weights for twelve days; then take them out, and strip off the leaves, and put them again into the binn, and let them be well pressed, and so as no air gains admission for a month. Take them out; tie them in bundles about sixty leaves in each, which are called monocoës, and are ready for sale. But let them always be kept close till they are to be disposed of. Let the curing house be well built, and very close and warm: if a boarded building, it will not be amiss, in a wet situation, to cover the whole outside with thatch and plantain trash, to keep off the damps; for this will preserve the fine volatile oil in the leaves. No smoke is to be made use of or admitted into the curing-house.

Since the introduction of tobacco into Europe, 1560, various medical properties have been ascribed to it by Stahl and other German physicians; but the manner in which of late years it has been spoken of, by the generality of writers on *materia medica*, has occasioned it to be almost wholly dismissed from modern practice, at least from internal use: but Dr. Fowler made a series of experiments, whence he infers that tobacco, under proper regulations, may be administered internally, not only as a safe but as an efficacious remedy, especially as a diuretic in cases of dropsy and dysury. He speaks also of the use of tobacco in injections; an ounce of the infusion in a pint of water-gruel at a time, and repeated in cases of obstinate constipation, as the case may require. In the dry belly-ach, in the West Indies, injections of the smoke of tobacco have long been employed with the happiest effects. After all, the internal use of tobacco should be very limited, and can only be safe in the hands of a skilful and attentive practitioner.

Tobacco is sometimes used externally in unguents for destroying cutaneous insects, cleansing old ulcers, &c. Beaten into a mash, with vinegar or brandy, it has sometimes proved serviceable for removing hard tumors of the hypochondres: an account is given in the *Edinburgh Essays* of two cases of this kind cured by it. The most common uses of this plant, however, are either as a sternutatory when taken by way of snuff, as a masticatory by chewing it in the mouth, or as effluvia by smoking it. Before pipes were invented, it was usually smoked in segars, and they are still in use among some of the southern nations. The method of preparing these is at once simple and expeditious. A leaf of tobacco being formed into a small twisted roll, somewhat larger than the stem of a pipe, and about eight inches long, the smoke is conveyed through the winding folds which prevent it from expanding, as through a tube; so that one end

of it being lighted, and the other applied to the mouth, it is in this form used without much inconvenience. But, in process of time, pipes being invented, they were found more commodious vehicles for the smoke, and are now in general use. In the countries of which tobacco is a native, it is considered by the Indians as the most valuable offering that can be made to the beings they worship. They use it in all their civil and religious ceremonies. When once the spiral wreaths of its smoke ascend from the feathered pipe of peace, the compact that has been just made is considered as sacred and inviolable. Tobacco is made up into rolls by the inhabitants of the interior parts of America, by means of a machine called a tobacco-wheel. With this machine they spin the leaves, after they are cured, into a twist of any size they think fit; and, having folded it into rolls of about twenty pounds each, they lay it by for use. In this state it will keep for several years, and be continually improving, as it always grows milder. The Illinois usually form it into carrots; which is done by laying a number of leaves, when cured, on each other after the ribs have been taken out, and rolling them round with packthread, till they become cemented together. These rolls commonly measure about eighteen or twenty inches in length, and nine round in the middle part. Tobacco forms a very considerable article in commerce.

**TOBACCO WORM**, in entomology, an insect which often proves destructive to that plant. This animal is of the horned species. In what manner it is produced and propagated is unknown: but it is not discernible till the plants have attained about half their height; and then appears to be nearly as large as a gnat. Soon after this it lengthens into a worm; and by degrees increases in magnitude to the bigness of a man's finger. In shape it is regular from its head to its tail, without any diminution at either extremity. It is indented or ribbed round at equal distances, nearly a quarter of an inch from each other; and having at every one of these divisions a pair of feet or claws, by which it fastens itself to the plant. Its mouth, like that of the caterpillar, is placed under the fore-part of the head. On the top of the head, between the eyes, grows a horn about half an inch long, and greatly resembling a thorn; the extreme part of which is of a brown color, a firm texture, and the extremity sharp pointed. It is easily crushed; being only, to appearance, a collection of green juice enclosed in a membranous covering, without the internal parts of an animated being. The color of its skin is in general green, interspersed with several spots of a yellowish white; and the whole covered with a short hair scarcely to be discerned. These worms are found the most predominant during the end of July and beginning of August, when the plant must be particularly attended to, and every leaf carefully searched. As soon as a wound is discovered, and it will be soon perceptible, care must be taken to destroy the worm which will be found near it, and from its unsubstantial texture may easily be crushed; but the best method is to pull it away by the horn and then crush it.

**TOBACCO-PIPE FISH.** See *FISTULA*.

**TOBAGO**, one of the Caribbee islands of the West Indies, is twenty-seven leagues distant from Grenada, and seventeen from Trinidad. It is eleven leagues long north-east and south-west, and three leagues broad. Its surface is less irregular than in most of the other islands, and the acclivities less abrupt. The soil is in general light and sandy, but fertile, and sufficiently watered by springs. Nearly in the centre of the island is a hill, whose reddish black color denotes the ancient existence of a volcano. Its vicinity to the continent secures it from the devastation of hurricanes. The climate is also more temperate than that of most of the other islands. The principal place is at Man of War's Bay, on the north-east side of the island; the best harbour in the West Indies having depth for the largest ships close to the shore.

The population of the island was—

|                      | 1777. | 1788.  | 1805.  |
|----------------------|-------|--------|--------|
| Whites               | 400   | 1,400  | 900    |
| Free people of color | —     | 1,050  | 700    |
| Slaves               | 8,000 | 10,539 | 14,883 |
|                      | 8,400 | 12,989 | 16,483 |

The productions in

|                  | 1777.     |           | 1788.     |           |
|------------------|-----------|-----------|-----------|-----------|
|                  | Quintals. | Francs.   | Quintals. | Francs.   |
| Sugar .          | 20,000    | 800,000   | 20,250    | 754,000   |
| Cotton .         | 8,000     | 1,200,000 | 12,320    | 2,464,000 |
| Indigo .         | 120       | 96,000    | 45        | 42,000    |
| Coffee, and sun- | }         | .         | 159       | 29,000    |
| dries            |           |           |           |           |
| Carried off by   | }         | .         | —         | 402,000   |
| foreigners       |           |           |           |           |
|                  |           | 2,096,000 |           | 3,691,000 |

The official value of the imports from and exports to the island—

|      | Imports.  | Exports. |
|------|-----------|----------|
| 1809 | £ 226,824 | £ 70,585 |
| 1810 | 201,169   | 70,787   |

Principal exports to England of the island produce—

|      | Sugar.<br>cwt. | Rum.<br>galls. | Cotton.<br>lbs. |
|------|----------------|----------------|-----------------|
| 1809 | 130,122        | 525,327        | 48,791          |
| 1810 | 124,208        | 337,433        | 11,818          |

Little Tobago Island is a great rock, two miles long and one broad, near the north-east end of Tobago.

**TOBIN** (John), an English dramatic poet, was a native of Salisbury, born in 1770, and educated for the law by his father, a West India merchant. With this view, after the usual period spent in preparatory study at Southampton and Bristol, he placed him in a conveyancer's office in the metropolis, where he served his time, and was admitted an attorney of the court of king's bench. His predilection soon induced him, however, to direct his attention towards writing for the stage, when the critics of the green-room rejected all his pieces, with the exception of a farce, really deficient in merit; nor was it till some time after his decease, which took place at Cork, in 1804, that accident having brought his play of the *Honeymoon* before the public, the

popularity it acquired induced the managers to bring out another of his pieces, the *Curfew*. A delicate state of health, which had long threatened the most serious consequences, terminated at length in a consumption, which carried him off in 1804, after embarking for the West Indies. He was buried at Cork.

**TOBIT**, one of the books of the Apocrypha. It is stuffed with superstition. One Tobias, or Tobit, whose story it contains, is supposed to have been the author.

**TOBOL**, a considerable river of Russia, which rises near the southern extremity of the Oral mountains. The first considerable stream which it receives is the Oni or Ouk on the left, after which it becomes navigable. It afterwards receives the Iset, the Toura, and the Tauda, and finally joins the Irtysh, near Tobolsk, after a course of nearly 400 miles. The shores are generally flat and liable to inundation.

**TOBOLSK**, the name of one of the two great governments of Asiatic Russia, forming the western part of that immense territory: the eastern being Irkoutsk. On the west the chain of the Orals separates this government from that of European Russia; on the north it is bounded by a vast extent of the Northern Ocean, broken into many deep bays, and extending from the mouth of the Obi to that of the Olenek; on the south, a frontier, consisting partly of mountains, and partly of desert plains, separates it from Chinese and Independent Tartary; while on the east a varying line divides it from Irkoutsk. This government includes the vast tracts watered by the Obi, the Irtysh, and the Yenisei; and within its bounds is contained most of the cultivated part of Asiatic Russia. See **RUSSIA**. In respect to mineral wealth, few regions can rival the mountains of the western and southern frontier. The Orals, through a great part of their line, produce iron and copper abundantly: and the forges of Catharinenburg are perhaps the most extensive in the old world. In the southern chain are the celebrated forges of Kolivan, now, however, surpassed by those of Barnaoul, which derive from the neighbouring mountains of Schlangenberg an inexhaustible supply of various minerals, including a considerable quantity of gold and silver. The widely extended forests and wastes of this region afford also ample opportunities of hunting, and the northern districts are covered with animals, rendered valuable by their furs. The sable has now, however, by the eagerness with which it has been pursued, been almost extirpated.

**TOBOLSK**, a large city, the capital of the government of the same name, and of Asiatic Russia, is situated on the river Irtysh, close to its junction with the Tobol. When, in 1587, the Russians first took possession of this country they built a mere ostrog, or wooden fort, here, with the view of keeping the natives in subjection; but, in 1643, this being burnt to the ground they erected the present city. It is composed of the High and the Low town, the former built on an elevated ridge, running parallel to the Irtysh, at a little distance, while the latter fills the level space between it and the river. The high town or city, properly so called, contains the residence



of the governor, the tribunals, public offices, and magazine of foreign merchandise. These, with two churches and a convent, are all the edifices composed of stone; the rest are of wood. The buildings being white, and the cupolas gilded, cause them, in this situation, to make a very fine appearance. Here was formerly a kremlin, built of stone and flanked with towers; but it is now gone to ruin: to the south of it is the great market square, enclosed by stone buildings, forming two stories of merchant shops. While this part of Tobolsk, from its height, is exempt from inundations, the inhabitants have the inconvenience of not being able to procure water unless by going to the foot of the hill. The low town, on the contrary, is plentifully supplied with water, but seldom a year passes without its being overflowed. With the exception of a convent it is built entirely of wood. Connected with it is a large suburb inhabited by the Tartars, the original inhabitants of the country at the time of the conquest. The largest colony ever transported hither consisted of the Swedish officers made prisoners at the battle of Pultawa, and no circumstance ever tended more to the civilisation of a remote quarter of the world. In their leisure they cultivated carefully the arts and studies with which they were conversant; and many of them recommended themselves to the natives by opening schools. Those, indeed, whose fortunes were limited found many advantages here. Provisions and all the necessities of life are so excessively cheap that, in Gmelin's time, it was reckoned a man might live comfortably, in the middling rank, for less than two pounds a year; while the neighbouring woods and rivers afforded the finest hunting and fishing. The present style, both of taste and society, is approaching to a level with the rest of Europe; and Kotzebue had the satisfaction, during his exile, of seeing his own plays acted in the theatre here. Dr. Clarke conceives that the society there is now as good as in any Russian city. The merchants from Europe arrive here in spring with their commodities destined for China; and at the end of summer the boats appear returning with their cargoes to be transported to Moscow and Petersburg. The merchants from Tartary and Bucharra arrive in the beginning of winter, spend that season at Tobolsk, and return in spring. All the furs collected as tribute from the immense deserts traversed by the wandering tribes are brought to Tobolsk. Large magazines are provided for depositing them. The population is stated at 16,269.

**TOCUYO**, a town of South America, in the government of the Caraccas, and province of Venezuela, situated near the source of a river of its name. It is built in a valley formed by two mountains. Its division and construction are very regular, the streets on a line, and sufficiently wide. The wheat obtained here is esteemed the best in the province, and furnishes the consumption of many towns of the interior. They estimate the flour which is annually exported from Tocuyo to Barquisimeto, Guanara, St. Philip, and Caraccas, at from 8000 to 10,000 quintals. Here they also fabricate from the wool of their sheep coverlids and other cloths, which they send or

carry as far as Maracaibo and Carthagena. They have also tanneries and taweries, and, like the inhabitants of Carora, work up as many as they can of the raw materials and sell the rest. Another species of commerce, exceedingly lucrative to the citizens of Tocuyo, is the sale of salt from the salt ponds of Coro. Their activity maintains them in the exclusive vent of this article of the first necessity. Inhabitants 10,200. 270 miles south-west of Caraccas, and sixty north of Truxillo.

**TOD**, *n. s.* Germ. *totte haar*, a lock of hair.—Skinner. A bush; a thick shrub (obsolete): a certain weight of wool, twenty-eight pounds.

Within the ivie tod

There shrouded was the little god;

I heard a busy bustling.

*Spenser.*

Every eleven wether *tods*, every *tod* yields a pound and odd shillings.

*Shakespeare.*

**TODD** (Hugh), an English historian and divine, born in Cumberland about 1660, and educated at Queen's College, Oxford. He published, 1. The Description of Sweden; 2. The Life of Phocion. He left in MS., 1. Notitia Ecclesiæ Cathedralis Carliolensis; 2. Notitia Prioratus de Wedderhall, &c.; 3. A History of the Diocese of Carlisle, &c. He died after 1708.

**TODUS**, the tody, in ornithology, a genus belonging to the order of picæ. The beak is slender, depressed, broad, and the base beset with bristles. The nostrils are small and oval. The toes are placed three before and one behind; the middle are greatly connected to the outer. There are fifteen species according to Dr. Latham. 'Birds of this genus (he says) inhabit the warmer parts of America. They vary considerably in their bills as to breadth, but all of them have a certain flatness, or depression, which is peculiar.'

**TOE**, *n. s.* Sax. *ta*; Belg. *toon*; Goth *to*, *tow*, a claw. The divided extremities of the feet; the fingers of the feet.

Come, all you spirits,

And fill me, from the crown to the' *toes*, topful

Of direst cruelty.

*Shakespeare.*

Sport, that wrinkled Care derides,

And Laughter, holding both his sides,

Come, and trip it, as you go,

On the light fantastick *toes*.

*Milton*

Last to enjoy her sense of feeling,

A thousand little nerves she sends

Quite to our *toes*, and fingers' ends.

*Prior.*

**TOFORE**, *adv.* Sax. *toforan*. Before. Obsolete.

It is an epilogue, to make plain

Some obscure precedence that hath *tofore* been said

*Shakespeare.*

So shall they depart the manor with the corn and the bacon *tofore* him that hath won it.

*Spectator.*

**TOGA**, in Roman antiquity, a wide woollen gown or mantle which seems to have been of a semicircular form, without sleeves, differing both in richness and largeness according to the circumstances of the wearer, and used only in public. It was the distinguishing mark of a Roman; hence the *jus togæ*, or privilege of a Roman citizen; i. e. the right of wearing a Roman habit, and of taking fire and water through the Roman empire.

**TOGATA GALLIA**, a name given to Cisalpine

Gaul by the Romans, or that part of Gaul which lay in Italy on this side of the Alps as to Rome; because the people wore togæ or gowns like the Romans. See GALLIA.

**TOGED**, *adj.* Latin *togatus*. Gowned; dressed in gowns.

The bookish theorick,  
Wherein the *toged* consults can propose  
As masterly as he; mere prattle, without practice,  
Is all his soldiiership. *Shakespeare.*

**TOGETHER**, *adv.* Sax. *toġæðere*. In company; without intermission; in continuity. We turned o'er many books *together*. *Shakespeare.*  
That king joined humanity and policy *together*. *Bacon.*

She lodgeth heat and cold, and moist and dry,  
And life and death, and peace and war *together*. *Davies.*

Some tree's broad leaves *together* sewed,  
And girded on our loins, may cover round. *Milton.*

The Portuguese expected his return for almost an age *together* after the battle. *Dryden.*

Take the bad *together* with the good. *Id.*  
They had a great debate concerning the punishment of one of their admirals, which lasted a month *together*. *Addison.*

The subject is his confederacy with Henry the Eighth, and the wars they made *together* upon France. *Id.*

**TOIL**, *v. a., v. n., & n. s.* } Saxon *tilian*;  
**TOILSOME**, *adj.* } Belg. *tuylen*. To labor; originally to labor in tillage. See **TILL**.  
As a verb active, to labor at; weary: as a noun substantive labor; fatigue; any thing laboriously or artfully contrived: toilsome is wearisome; laborious.

They live to their great, both *toil* and grief, where the blasphemies of Arians are renewed. *Hooker.*

He had so placed his horsemen and footmen in the woods, that he shut up the Christians as it were in a *toil*. *Knolles.*

This Percy was the man nearest my soul;  
Who, like a brother, *toiled* in my affairs,  
And laid his love and life under my foot.

*Shakespeare.*  
He, *toiled* with works of war, retired himself  
To Italy. *Id.*

She looks like sleep,  
As she would catch another Antony  
In her strong *toil* of grace. *Id.*

The law of the fourth commandment was not agreeable to the state of innocency; for in that happy state there was no *toilsome* labour for man or beast. *White.*

All great spirits  
Bear great and sudden change with such impatience  
As a Numidian lion, when first caught,  
Endures the *toil* that holds him. *Denham.*

Not to irksome *toil*, but to delight  
He made us. *Milton.*

*Toiled* up my uncouth passage, forced to ride  
The untractable abyss. *Id.*

This, were it *toilsome*, yet with thee were sweet. *Id.*

Fantastick honour, thou hast framed a *toil*  
Thyself. to make thy love thy virtue's spoil. *Dryden.*

Others ill-fated are condemned to *toil*  
Their tedious life, and mourn their purpose blasted  
With fruitless act. *Prior.*

Absent or dead, still let a friend be dear,  
A sigh the absent claims, the dead a tear;

Recall those nights that closed thy *toilsome* days,  
Still hear thy Parnel in his living lays. *Pope.*

He views the main that ever *toils* below. *Thomson.*

The love of praise, howe'er concealed by art,  
Reigns more or less, and glows in every heart;  
The proud to gain it *toils* and *toils* endure,  
The modest shun it, but to make it sure. *Young.*

**TOILET**, *n. s.* Fr. *toilette*. A dressing-table.

The merchant from the exchange returns in peace,  
And the long labours of the *toilet* cease. *Pope.*

**TOKAY WINE**. There are four sorts of wine made from the same grapes, distinguished at Tokay by the names of essence, auspruch, masslach, and the common wine. The essence is made by picking out the half-dried and shrivelled grapes and putting them into a perforated vessel, where they remain as long as any juice runs off by the mere pressure of their own weight. This is put into small casks. The auspruch is made by pouring the expressed juice of the grapes from which the former had been picked, out on those that yielded the essence, and treading them with the feet. The liquor thus obtained stands for a day or two to ferment, and then is poured into small casks, which are kept in the air for about a month, and afterwards put into casks. The same process is repeated on the addition of more juice to the grapes which have already undergone the two former pressures, and they are now wrung with the hands; and thus is had the masslach. The fourth kind is made by taking all the grapes together at first and submitting them to the greatest pressure; this is chiefly prepared by the peasants. The essence is thick, and very sweet and luscious; it is chiefly used to mix with the other kinds. The auspruch is the wine commonly exported, and which in foreign countries is called Tokay. The goodness of it is determined by the following rules:—The color should neither be reddish nor very pale, but a light silver; in trying it, the palate and tip of the tongue should be wetted without swallowing it, and if it manifest any acrimony to the tongue it is not good; but the taste ought to be soft and mild; when poured out it should form globules in the glass, and have an oily appearance; when genuine the strongest is always of the best quality; when swallowed it should have an earthy astringent taste in the mouth, which is called the taste of the root. All Tokay wine has an aromatic taste, which distinguishes it from every other species of wine. It keeps to any age, and improves by time, but is never good till about three years old. It is the best way to transport it in casks; for when it is on the seas it ferments three times every season, and thus refines itself. When in bottles there must be an empty space left between the wine and the cork, otherwise it would burst the bottle. A little oil is put upon the surface, and a piece of bladder tied over the cork. The bottles are always laid on their sides in sand.—Philosophical Transactions, vol. lxiii. part ii. p. 292, &c.

**TO'KEN**, *n. s. & v. a.* Sax. *tacn*; Goth. *takn*. A sign; mark; memorial; proof: to make known.



Shew me a *token* for good, that they which hate me may see it.

*Psalm.*

What in time proceeds,  
May *token* to the future our past deeds. *Shakspeare.*

Here is a letter from queen Hecuba,

A *token* from her daughter, my fair love.

*Id.*

Pigwiggien gladly would commend

Some *token* to queen Mab to send,

Were worthy of her wearing.

*Drayton.*

They have not the least *token* or shew of the arts and industry of China.

*Heylin.*

Whosoever you see ingratitude, you may as infallibly conclude that there is a growing stock of ill-nature in that breast, as you may know that man to have the plague upon whom you see the *tokens*.

*South.*

TOLAND (John) was born near Londonderry in Ireland, 1670, and educated in the Popish religion, but at sixteen years of age he turned Protestant. He studied three years at the university of Glasgow; was created M.A. in that of Edinburgh; and completed his studies at Leyden, where he resided two years. He then went to Oxford, where he published a Dissertation to prove the received history of the tragical death of Atilius Regulus to be a fable. See REGULUS. He next undertook to show that there are no mysteries in the Christian religion. He published it in 1696 at London, under the title of Christianity not Mysterious. This book gave great offence, and was attacked by several writers. He afterwards wrote in favor of the Hanoverian succession, and many other pieces. In 1707 he went into Germany, visited several courts, and, in 1710, was introduced to prince Eugene, who gave him several marks of his generosity. Upon his return to England he was for some time supported by the liberality of the earl of Oxford, and kept a country-house at Epsom; but soon losing his lordship's favor he published several pamphlets against that minister's measures. During the four last years of his life he lived at Putney, but spent most of the winter in London. He died at London in 1722. His private character was not amiable. His posthumous works, 2 vols. 8vo., were published in 1726, with an account of his life and writings, by M. Des Maizeaux.

TOLE, *v. a.* Goth. *tela*. To train; draw by degrees.

Whatever you observe him to be more frightened at than he should, *tela* him on by insensible degrees, till at last he masters the difficulty.

*Locke.*

TOLEDO, a province in the central part of Spain, in New Castile, situated chiefly to the south of the Tagus. Its area (according to Antillon) is 9210 square miles; its population 371,000. The surface consists partly of mountain tracts, partly of elevated and extensive plains, the soil of which, however, is frequently sandy or chalky, so that spring water is scarce, and hardly a tree is met with to enliven the prospect or afford a shade. This province is traversed by the Sierra de Guadalupe, Del Rubial de Yevenes, and de Billuercsa; from these, and from more distant mountains, flow several rivers, as the Alberche and the Algodar. The Tagus traverses at the northern, and the Guadiana approaches the southern, part of the province. The temperature varies: in the plains the summer is

hot; and this province, protected as it is on the south by lofty mountains, does not altogether escape the solano, or hot African wind. The scarcity of water is a great obstacle to the extension of tillage, and, if the corn produced be equal, or sometimes more than equal, to the consumption, it is owing to the thinness of the population. But the pasturage is good, and the flocks of sheep are numerous. Vines, silk, honey, wax, fruits, and fine wool, are the products of this province. The manufactures are trifling. The province is divided into five districts.

TOLEDO, an ancient city of New Castile, Spain, the see of an archbishop, is situated on the sides and top of a steep hill, bathed by the Tagus on the north and west sides, in the midst of a narrow valley surrounded by lofty mountains. The environs are unproductive, and the surrounding hills present a monotonous assemblage of rocks, while, by concentrating the sun's rays, they render the heat in summer excessive. The houses are crowded, the streets narrow and steep.

The chief attraction in Toledo is its public edifices, some of which have great beauty and grandeur. The Alcazar is a large structure on the top of a hill, built with solidity and decorated with statues. Its central gate, its vestibule, its court, its subterranean apartments, are all entitled to admiration; but, being no longer wanted as a princely residence, it has been converted into a factory or working establishment for the lower orders. The cathedral is of great antiquity, having been founded, it is said, in the year 630, and having served as a mosque to the Moors. It was rebuilt in 1227, and is a Gothic building, which, from its magnitude, would be magnificent were not its front too low and its interior so much subdivided. The wealth of the archbishop of Toledo was formerly proverbial, his income having been said to exceed £100,000 a-year. There are in Toledo a number of churches, hospitals, monasteries, and convents. The hospital of St. Cruz is an elegant building of the fifteenth century; that of St. John, built in the sixteenth, is equally rich and in a better situation. Of Roman monuments there are here the remains of a circus, an aqueduct, and a road. The walls, though ruinous, are of less remote date, being Moorish: the university was suppressed in 1807.

Woollens, linen, and silks, are manufactured here; and the Toledo swords, so noted throughout Spain till excluded a century ago from fashionable dress by French swords, are now made in a large building on the banks of the Tagus. The secret of tempering them is said to be still preserved, and they fetch a very high price. The Gothic kings fixed their residence here in the year 567. In 711 the town was taken by the Moors, and became the abode, first of a viceroy, eventually of an independent prince. It was in the year 1085 that this ancient capital fell into the hands of the Christians, and became anew the residence of their kings. It was besieged by the Moors, without success, in 1109, 1114, and 1127. At a subsequent date it was less fortunate, having been besieged and taken in 1467 and in 1641. Great part of the town was burned on each occasion, which, with the

removal of the government to Madrid, has been the cause of its decline. Toledo was formerly the seat of several meetings of the cortes, and of a number of national church councils. Forty miles S. S. W. of Madrid, and 290 east by north of Lisbon.

**TOLENTINO**, a town in the state of the church, Italy, situated on a rising ground, watered by the river Chiento. It contains nearly 4000 inhabitants, and is remarkable for a treaty of peace concluded here between Buonaparte and the papal court in February 1797; also for some partial actions between the Austrians and Neapolitans in the beginning of May, 1815. Thirty miles S. S. W. of Ancona, and ninety-two N. N. E. of Rome.

**TOLERABLE**, *adj.* } Fr. *tolerable*; Lat. *tolerabilis*. Supportable; that may be endured or supported: the adverb corresponding.

It shall be more *tolerable* for Sodom in the day of judgment than for that city. *Matthew.*

Yourselves, who have sought them, ye so excuse, as that ye would have men to think ye judge them not allowable, but *tolerable* only, and to be borne with, for the furtherance of your purposes, till the corrupt estate of the church may be better formed. *Hooker.*

Cold and heat scarce *tolerable*. *Milton.*

There is nothing of difficulty in the external performance, but what hypocrisy can make *tolerable* to itself. *Tillotson.*

The reader may be assured of a *tolerable* translation. *Dryden.*

The person to whom this head belonged laughed frequently, and on particular occasions had acquitted himself *tolerably* at a ball. *Spectator.*

Sometimes are found in these laxer strata bodies that are still *tolerably* firm. *Woodward.*

Princes have it in their power to keep a majority on their side by any *tolerable* administration, till provoked by continual oppressions. *Swift.*

**TOLERATE**, *v. a.* } Lat. *tolero*; Fr. *tolerer*.  
**TOLERATION**, *n. s.* } To allow so as not to  
**TOLERANCE**. } hinder; to suffer; pass  
uncensured: the noun substantives both corresponding.

Inasmuch as they did resolve to remove only such things of that kind as the church might best spare, retaining the residue; their whole counsel is, in this point, utterly condemned, as having either proceeded from the blindness of those times, or from negligence, or from desire of honour and glory, or from an erroneous opinion that such things might be *tolerated* for a while. *Hooker.*

Diogenes one frosty morning came into the market-place shaking, to shew his *tolerance*; many of the people came about him, pitying him. Plato passing by, and knowing he did it to be seen, said, If you pity him indeed, let him alone to himself. *Bacon.*

There wants nothing but consideration of our own eternal weal, a *tolerance* or endurance of being made happy here, and blessed eternally. *Hammond.*

We shall *tolerate* flying horses, harpies, and satyrs; for these are poetical fancies, whose shaded moralities require their substantial falsities. *Browne.*

Crying should not be *tolerated* in children. *Locke.*

I shall not speak against the indulgence and *toleration* granted to these men. *South.*

We are fully convinced that we shall always *tolerate* them, but not that they will *tolerate* us. *Swift.*

Men should not *tolerate* themselves one minute in any known sin. *Decay of Piety.*

**TOLERATION**, in religion, is either civil or ecclesiastical. Civil toleration is an impunity and safety granted by the state to every sect that does not maintain doctrines inconsistent with the public peace; and ecclesiastical toleration is the allowance which the church grants to its members to differ in certain opinions not reputed fundamental.

**TOLL**, *n. s.* & *v. n.* Sax. *toll*; Belg. *tol*; Teut. *zol*; Welsh *toll*, from Goth. *tala*, to divide out. A portion; an excise of goods; a payment for permission to pass; a fee: to pay such a fee or tax; also to take it.

The meale the more yeeldeth if servant be true,  
And miller that *tolleth* takes none but his due. *Tusser.*

I will buy me a son-in-law in a fair, and toll for him; for this, I'll none of him. *Shakspeare.*

Empton and Dudley the people esteemed as his horse-leeches, bold men, that took *toll* of their master's grist. *Bacon.*

*Toll*, in law, has two significations: first, a liberty to buy and sell within the precincts of a manor, which seems to import as much as a fair or market; secondly, a tribute or custom paid for passage. *Cowell.*

Where, when, by whom, and what y' were sold for,  
And in the open market *toll*ed for? *Hudibras.*

The same Prusias joined with the Rhodians against the Byzantines, and stopped them from levying the *toll* upon their trade into the Euxine. *Arbuthnot.*

**TOLL**, *v. a.* & *v. n.* Sax. *ta plawan*; Goth. *ta loa*. To ring a bell; sound as a bell.

The first bringer of unwelcome news  
Hath but a losing office; and his tongue  
Sounds ever after as a sullen bell,  
Remembered *tolling* a departed friend. *Shakspeare.*

*Toll, toll,*

Gentle bell, for the soul  
Of the pure ones. *Denham.*

When any one dies, then by *tolling* or ringing of a bell the same is known to the searchers. *Graunt.*

Our going to church at the *tolling* of a bell, only tells us the time when we ought to go to worship God. *Stillingfleet.*

You love to hear of some prodigious tale,  
The bell that *toll*ed alone, or Irish whale. *Dryden.*

With horns and trumpets now to madness swell,  
Now sink in sorrows with a *tolling* bell. *Pope.*

**TOLL**, *v. a.* Lat. *tollo*. To take or invite away; annul; vacate.

The adventitious moisture which hangeth loose in a body, betrayeth and *tolleth* forth the innate and radical moisture along with it. *Bacon.*

An appeal from sentence of excommunication does not suspend it, but then devolves it to a superior judge, and *tolls* the presumption in favour of a sentence. *Ayliffe.*

A **TOLL** is a tax or custom paid for liberty to vend goods in a market or fair, or for keeping roads in proper repair. The first appointment of a toll on highways of which we read took place in 1346. See **ROAD**.

**TOLL'BOOTH**, *v. a.* To imprison in a toll-booth.



To these what did he give? why a hen,  
That they might tollbooth Oxford men.

Bishop Corbet.

**TOLLET** (Elizabeth), an ingenious and learned English lady, born in 1694. She was well skilled in Latin, French, and Italian, as well as in history and mathematics. She wrote several poems, and a dramatic piece entitled *Susanna, or Innocence Preserved*.

**TOLIUS** (Alexander), a learned Dutch critic, born at Ingra in the province of Utrecht. He published an elegant edition of Appian.

**TOLLIVS** (Cornelius), brother of the preceding, was also a learned critic, and became secretary to Isaac Vossius, and afterwards professor of Greek and rhetoric at Harderwyck. He published an edition of *Palæphatus*, and a work entitled *De Infelicitate Litteratorum*.

**TOLLIVS** (James), M. D., brother to Cornelius and Alexander, was born at Ingra in Utrecht, and studied physic. He became a physician and professor of rhetoric and Greek at Brandenburg. He published elegant editions of, 1. *Ausonius, cum notis variorum*, 1671; 2. *Longinus de Sublimitate*, 1694. He died in 1696.

**TOLMIDES**, an Athenian general, who was defeated and killed in a battle with the Thebans in Boeotia, A. A. C. 447.—Polyen. 7.

**TOLOSA**, in ancient geography, a town of Gallia Narbonensis, which became a Roman colony under Augustus. There was in it a rich temple of Minerva which Cæpio the Roman consul plundered, but being ever afterwards unfortunate, aurum Tolosanum became proverbial. Cæs. de B. G. It is now called Toulouse.

**TOLU, BALSAM OF.** This substance is soluble in the alkalies, like the rest of the balsams. When dissolved in the smallest possible quantity of lixivium of potash, it completely loses its own odor and assumes a fragrant smell, somewhat resembling that of the clove pink. 'This smell' Mr. Hatchett observes, 'is not fugitive, for it is still retained by a solution which was prepared in June, and has remained in an open glass during four months.' When digested in sulphuric acid a considerable quantity of pure benzoic acid sublimes. When the solution of it in this acid is evaporated to dryness, and the residuum treated with alcohol, a portion of artificial tannin is obtained: the residual charcoal amounts to 0.54 of the original balsam. Mr. Hatchett found that it dissolved in nitric acid, with nearly the same phenomena as the resins; but it assumed the smell of bitter almonds, which led him to suspect the formation of prussic acid. During the solution in nitric acid a portion of benzoic acid sublimes. By repeated digestions it is converted into artificial tannin. It is totally soluble in alcohol, from which water separates the whole of it, except the benzoic acid.

**TOLUIFERA**, the balsam of Tolu tree, a genus of plants belonging to the class of decandria and order of monogynia. There is only one species, viz. *T. balsamum*. This tree grows to a considerable height; it sends off numerous large branches, and is covered with rough, thick, grayish bark; the leaves are elliptical or ovate, entire, pointed, alternate, of a light green color, and stand upon short strong foot-stalks; the flowers

are numerous, and produced in lateral racemi; the calyx is bell-shaped, divided at the brim into five teeth, which are nearly equal, but one is projected to a greater distance than the others; the petals are inserted into the receptacle, of which four are equal, linear, and a little longer than the calyx; the fifth is much the largest, inversely heart-shaped, and its unguis is of the length of the calyx; the ten filaments are very short, and furnished with long antheræ; the germen is oblong; there is no style; the stigma is pointed; the fruit is a round berry. The balsam is obtained by making incisions in the bark of the tree, and is collected into spoons, which are made of black wax, from which it is poured into proper vessels. This balsam is of a reddish yellow color, transparent, in consistence thick and tenacious; by age it grows so hard and brittle that it may be rubbed into a powder between the finger and thumb. Its smell is extremely fragrant, somewhat resembling that of lemons; its taste is warm and sweetish, and on being chewed it adheres to the teeth. Thrown into the fire it immediately liquifies, takes flame, and disperses its agreeable odour. Though it does not dissolve in water, yet if boiled in it for two, or three hours in a covered vessel, the water receives its odoriferous smell; water also suffers a similar impregnation from the balsam by distillation. With the assistance of mucilage it unites with water so as to form a milky solution. It dissolves entirely in spirit of wine, and easily mixes with distilled oils, but less easily with expressed oils. Distilled without addition it produces not only an empyreumatic oil of a pale dark color, but sometimes a small portion of a saline matter, similar to that of the flowers of benzoin. This balsam possesses the same general virtues with the balsam of Gilead and that of Peru; it is, however, less heating and stimulating, and may therefore be employed with more safety. It has been chiefly used as a pectoral, and is said to be an efficacious corroborant in gleets and seminal weaknesses. It is directed by the Pharmacopœias in the *syrupus toluanus*, *tinctura toluana*, and *syrupus balsamicus*. See **PHARMACY, Index**.

**TOLUTATION**, *n. s.* Lat. *toluto*. The act of pacing or ambling.

They move per latera, that is, two legs of one side together, which is *tolutation* or ambling. *Brownie.*

They rode; but authors having not Determined whether pace or trot,  
That is to say, whether *tolutation*,  
As they do term't, or succussion,  
We leave it.

*Hudibras.*

**TOMB**, *n. s. & v. a.* } Fr. *tombe, tombeau*;

**TOMB'LESS**, *adj.* } low Lat. *tumba*. A monument in which the dead are enclosed

Methinks I see thee, now thou art below,  
As one dead in the bottom of a tomb. *Shakespeare.*

Lay these bones in an unworthy urn,  
Tombless, with no remembrance over them. *Id.*

Time is drawn upon tombs an old man bald,  
winged, with a sithe and an hour-glass. *Peacham.*

Souls of boys were aëtic,  
And youths that *tombed* before their parents' wete. *Moy.*

The secret wound with which I bleed  
Shall lie wrapt up, even in my herse;

But on my tomb-stone thou shalt read  
 My answer to thy dubious verse. *Prior.*  
 Poor heart! she slumbers in her silent tomb:  
 Let her possess in peace that narrow room.

*Dryden.*

**TOMB** includes both the grave or sepulchre wherein a defunct is interred, and the monument erected to preserve his memory. The word is formed from the Greek *τυμβος*, tumulus, a sepulchre; or, according to Menage, from the Latin *tumba*, which signifies the same.

In many nations it has been customary to burn the bodies of the dead; and to collect the ashes with pious care into an urn, which was deposited in a tomb or sepulchre. See **BURIAL**. Among many nations it has also been the practice to lay the dead body in a tomb without consuming it, after having wrapped it up decently and sometimes placing it in a coffin. The tombs of the Jews were generally hollow places hewn out of a rock. The Egyptians also buried their dead in caves called catacombs. See **CATACOMB**. The pyramids, as some think, were also employed for the same purpose. Sometimes also after embalming their dead they placed them in niches in some magnificent apartment in their houses.

A tomb of the Persians is a circular building, open at top, about fifty-five feet diameter and twenty-five feet in height, filled to within five feet of the top, excepting a well of fifteen feet diameter in the centre. The part so filled is terraced, with a slight declivity toward the well. Two circular grooves three inches deep are raised round the well; the first at the distance of four, the second at ten, feet from the well. Grooves of the like depth or height, and four feet distant from each other at the outer part of the outer circle, are carried straight from the wall to the well, communicating with the circular ones, for the purpose of carrying off the water, &c. The tomb is thus divided into three circles of partitions; the outer about seven feet by four; the middle six by three; the inner four by two; the outer for the men, the middle for the women, the inner for the children; in which the bodies are respectively placed, wrapped loosely in a piece of cloth, and left to be devoured by the vultures, which is very soon done. The friends of the deceased come at the proper time and throw the bones into the well. The entrance is closed by an iron door, four feet square, on the eastern side, as high up as the terrace, to which a road is raised. Upon the wall, above the door, an additional wall is raised to prevent people from looking into the tomb, which the Perses are particularly careful to prevent. A Persian inscription is on a stone inserted over the door. From the bottom of the wall subterraneous passages lead to receive the bones, &c., and prevent the well from filling.

Of the ancient sepulchres found in Russia and Siberia some are perfect tumuli raised to an enormous height, while others are almost level with the ground. Some of them are encompassed with a square wall of large quarry stones placed in an erect position; others are covered only with a small heap of stones, or they are tumuli adorned with stones at top. Some are

mured with brick within and vaulted over; others are no more than pits or common graves. In some the earth is excavated several fathoms deep; others, and especially those which are topped by a lofty tumulus, are only dug of a sufficient depth for covering the carcase. Urns are never met with here; but sometimes what remained of the bodies after the combustion, and even whole carcases, are found wrapped up in thin plates of gold.

The Moors hold it an irreverent thing to bury their dead in mosques. The burial grounds of all Mahometans are mostly without the city, and they inter the dead at the hour set apart for prayer. Their tombs are exceedingly simple, and have no pretensions to architectural elegance. Among the northern nations it was customary to bury their dead under heaps of stones called cairns, or under barrows. The inhabitants of Tibet, it is said, neither bury nor burn their dead, but expose them on the tops of the mountains.

**TOMBAC**, sometimes called white copper, is in fact a white alloy of copper with arsenic, commonly brittle, though, if the quantity of arsenic be small, it is both ductile and malleable in a certain degree.

**TOM'BOY**, *n. s.* Tom, a diminutive of Thomas, and boy. A mean fellow; sometimes a wild coarse girl.

A lady

Fastened to an empery, to be partnered

With tomboys, hired with that self-exhibition

Which your own coffers yield!

*Shakespeare*

**TOMBUCTOO**, a large city of Central Africa, which has for many centuries been the emporium of the interior trade of that continent. This circumstance, ever since the rise of discovery and commercial enterprise, has excited in Europe an eager desire to visit and establish an intercourse with it. Although, however, it be reached by native caravans from every extremity of the continent, all attempts made during 300 years by European merchants and travellers have been until very lately completely baffled. Being unable, therefore, to furnish any connected or fully authenticated description, we have nothing left but to collect into one view the detached notices which have been received.

Leo Africanus, in 1500, is the first who gives a description of this city, which, as a merchant, he had visited twice; and though his account be now antiquated, yet, being the first which has ever been given by an intelligent eye-witness, it is still of some value. Tombuctoo is said to have been founded in the year of the Hegira 610 (1215 A. D.), by a king called Mense Suleiman. Under his successor, named Izchia, Tombuctoo had extended its dominion over all the neighbouring states, of which the principal were Ginea or Genni, Cassina, Guber, Zansara, and Cano. In his time also it seems to have acquired that commercial prosperity for which it has ever since been distinguished. The city contained many shops of artizans and merchants, and particularly numerous manufacturers of cotton cloth. There were in it many persons of great opulence, particularly foreign merchants, two of whom were reckoned so considerable by their wealth,



that the king had given them his daughters in marriage. The surrounding country abounded both in grain and in pasture for cattle, whence a copious supply of milk and butter was afforded; yet neither garden nor orchard, he says, was cultivated round the city. Salt was the article of which the scarcity was most felt, there being none except what was brought from Tegazza, at the distance of 500 miles, and sold at an enormous price. The king possessed an ample treasure, and held a very splendid and well-regulated court. When he went abroad, in state, he was mounted upon camels; but in war he and his nobles rode always on horseback. Great care was taken to keep his stud in good condition; and, as all horses of good quality were imported from Barbary, the merchants who bought them were obliged to give the king the first choice, and received from him a handsome price. The army consisted of 3000 cavalry, and a numerous infantry, many of whom used poisoned arrows. The king honored greatly letters and learned men; he gave ample salaries to judges, doctors, and priests, and paid such large prices for MSS. brought from Barbary, that these were reckoned among the most profitable articles of trade. The houses of the ordinary inhabitants appear to have been built in a somewhat humble style. They were in the form of bells; the walls composed of stakes or hurdles, and the roofs of interwoven reeds. Stone, however, had been used in the construction of the principal mosque, and of the royal palace, the latter of which was designed by an artist from Granada. The city was extremely exposed to fire; and Leo, in one of his visits, had seen half of it consumed by a single conflagration. Water was supplied from numerous wells; besides which, the waters of the Niger, when they overflowed, were conveyed through the town by sluices. The inhabitants were mild, courteous, and gay; and a great part of the night was often consumed in dancing and singing. The Jews, however, were the object of a most rigorous persecution. Such is the description given of Tombuctoo, during the period, probably, of its greatest glory.

It of course attracted the notice of the Portuguese when they carried their career of discovery along the western coast of Asia. They are even said to have sent embassies to the king; though it may be doubted, from the geographical position assigned, whether some other place was not here mistaken for Tombuctoo. It is, however, accurately described by Di Barros, as situated three leagues to the north of the Niger, as a great mart for gold, and resorted to by merchants from Cairo, Tunis, Morocco, Fez, and all the kingdoms of northern Africa.

The French now directed their exertions to penetrate into the interior of Africa, from the Senegal, then generally believed to be the same river with the Niger. From the native merchants, who came through Bambarra, they learned the existence of the lake Dabbie, under the name of Maberia: of the well watered territory of Ghingala (Jinbala of Park); and the position of Tombuctoo on the river beyond it. A large caravan of white men, with fire-arms, justly conjectured to be the Moors from Barbary, were stated

to arrive annually for the purposes of trade. It was added that large barks with masts had been seen in the river near Tombuctoo. These were erroneously supposed to belong to the Tripoli merchants; but, from Mr. Jackson's account, were probably those of a people inhabiting the banks of the Niger, farther to the eastward. But no French mission, either military or exploratory, ever extended beyond the banks of the Senegal; consequently none attained the frontier of Bambarra.

The first British efforts in this direction were made by the Gambia, then supposed to be also a branch of the Niger; but Jobson and Stibbs could not reach higher than the neighbourhood of Tenda; and their reports went only to discourage the idea of penetrating into the interior by this channel. All former achievements, however, were eclipsed by those of Park, who penetrated (see our article *AFRICA*) nearly 1000 miles beyond all the former limits of French or English discovery; but the pressure of disasters compelled him to stop considerably short of Tombuctoo. He learned that a kingdom of this name lay beyond that of Masina, which extended along the lake Dabbie, and bordered on the eastern frontier of Bambarra. The city lay about a day's journey to the north of the Niger; while its port, Cabra, was situated at the point of junction between the two branches of that river which issue out of the lake Dabbie. The government was stated to be in the hands of the Moors, who were more intolerant there than in any other country. A respectable negro told Mr. Park that, when he first visited Tombuctoo, the landlord with whom he lodged conducted him to his hut, on the floor of which there was a mat and a rope, and thus addressed him:—If you are a Mussulman you are my friend; sit down: but if you are a kafir, you are my slave, and with this rope I will lead you to market. The king of Tombuctoo was named Abu Abraham. It is stated, by Mr. Cahill from Rahat, and by Mr. Jackson from Mogodore, that some years after Park's journey, the king of Bambarra conquered Tombuctoo, and established there a negro government. The Moors, however, were not only permitted to reside and carry on their trade, but the internal police of the city was left in their hands. All religions are tolerated except the Jewish. Tombuctoo is described by Mr. Jackson as twelve miles in circumference, situated in a plain, encircled by sandy eminences. It is not surrounded by walls. The houses are spacious, built in a quadrangular form, but have no upper rooms, and even no windows, being entirely lighted from the doors, which are wide and lofty. The profits on the trade to Tombuctoo were said to be so great, that 5000 dollars, invested in European commodities at Mogodore or Fez, would, in a year or two, produce a return of 20,000.

Tombuctoo appears to Adams to stand on nearly the same extent of ground as Lisbon, though the population is probably much less, as the houses are built in a very scattered manner. The king and all his principal officers were negro, and Tombuctoo appeared to Adams completely a negro city. No Moors were allowed to reside, or even to enter it, unless in small parties.

Instead of an intolerant exclusion of every other religion except the Mabometan, he saw no mosques, nor any appearance of the rites of that religion being practised. This circumstance, which contrasts so singularly with Park's account, may, however, be connected with the revolutions which from other quarters we find stated to have taken place in the destinies of Tombuctoo. A further explanation may perhaps be found in the statement of Riley, that there was a separate city to which the Moors were confined. Adams does not describe the pomp of Tombuctoo in very lofty terms. The king's palace consists merely of a square space, enclosed by a mud wall, and containing eight small apartments on the ground floor. The houses of the chief citizens were built of wooden cases filled with clay and sand, and had only one story. The huts of the poorer class consisted merely of branches of trees bent in a circle, covered with a matting of palmeto and overlaid with earth. The king and queen wore dresses of blue nankeen, profusely ornamented with gold and ivory. These ornaments were much sought for by the people in general, but were not combined with much cleanliness, since a change of dress once in the week was considered a luxury of the great. The food consisted chiefly of maize, ground into flour, and boiled into a thick mess, over which goat's milk was then poured, forming what is called kouskous. Persons of all ranks sat round and ate it with their fingers, without spoon, knife, or fork, according to the universal practice of Africa.

Adams further describes Tombuctoo as situated immediately upon a river called the Mar Zarah, about three-quarters of a mile wide, and flowing, as he firmly believes, to the south-west. About two miles south of the town it passes between high mountains, where its breadth is contracted to half a mile. This cannot be the Niger itself, but a tributary to it, and the opposite direction in which it flows is probably one source of the contradictory statements as to the course of that great river. Adams, however, whose observations were exceedingly limited, does not appear to have known any thing of the Niger. The Mar Zarah was navigated by canoes composed of fig trees hollowed out. They set out occasionally by ten or twenty at a time for slaves and merchandize. The hunting of slaves appears to be reduced to a regular system. About once a month a party of armed men, consisting of 100, and sometimes as many as 500, marched out with this object. They went to the countries in the south and south-west, and, after a few weeks absence, used to bring in considerable numbers. The slaves thus procured, along with gold dust, ivory, gum, cowries, ostrich feathers, and goat skins, are exchanged with the Moors for tobacco, tar, gunpowder, blue nankeens, blankets, earthen jars, and some silks. A more recent account is contained in the narrative of Riley, an American captain, who in 1815 suffered shipwreck on the coast of the Sahara. His information is entirely derived from Sidi Hamet, an African merchant, by whom he was purchased and brought to Mogodore. According to him Tombuctoo is a large town, six times as populous as Mogodore.

The population is entirely negro, and no Moor is allowed to enter, unless fifty at a time unarmed from each caravan. He stated, however, what seems to have entirely escaped the notice of Adams, that there was a distinct town, divided from the other by a strong partition wall, which formed the residence of those Mussulmen who were permitted to remain at Tombuctoo. A strong wall, composed of stone mixed with clay, surrounds the city, which is entered by four gates that are shut during the night. The palace is extensive, lofty, and composed of the same materials as the wall. Most of the habitations are built of reeds, though there are also a number of stone houses. A small river runs close to the town; but at the distance of an hour's ride of a camel is the great river called Zolbib, evidently the Joliba of Park.

A still later account of Tombuctoo is that collected by captain Lyon during his residence in Fezzan. From the description given to him by the merchants, it did not appear so large a town as had been supposed; and some represented it as not more extensive than Mourzouk. It is walled, the houses very low, and, with the exception of one or two small streets, built irregularly. Many of the habitations are mere huts, composed of mats. The immense population which some have ascribed to it is accounted for by supposing that they included the Kafilas, who arrived there in great numbers, and, being often obliged to remain during the rainy season, erected temporary huts. Cabra its port was described as rather a collection of store houses than a town. The Nile, or Goulbi (Joliba), is there very broad; and, though in the dry season it may be forded by a camel, after the rains it becomes deep, rapid, and dangerous. The king is hereditary, but has little power. The trade consists in gold (brought from Jenne), cotton cloths, leather, and arms manufactured in Tombuctoo and the neighbouring villages. There exists to the south a nation of Jews, who, from their color and difference in customs from the Moors, have sometimes been supposed to be Christians. Tombuctoo has a language peculiar to itself.

We have now only to add that major Laing, having previously distinguished himself by his researches in the western coast of AFRICA (see that article), penetrated across the desert from Tripoli to Tombuctoo, where he spent two months; that he wrote from this place a letter to his relations, and spoke of being busy in searching the records of the town. Previously to that he had been attacked and desperately wounded in the desert by the Tuaricks; shortly after the sheik was commanded by the Foulahs to expel him, and he was murdered in the neighbourhood.

It is impossible even now to fix the precise position of Tombuctoo. Our maps usually place it in about long.  $1^{\circ} 20' E.$ , lat.  $17^{\circ} N.$ ; or about 1100 miles in the interior, from the mouth of the Senega.

TOME, *n. s.* *Fr.* *tome*; *Gr.* *τομος*. One volume of many; a book.

All those venerable books of scripture, all those sacred *tomos* and volumes of holy writ, are with such absolute perfection framed, Hooker,



**TOMEX**, in botany, a genus of plants of the class tetrandria and in the order of monogynia, and in the natural method ranking under the forty-third order, dumosæ. They have flowers tetrapetalous and complete, having both calyx and corolla.

**TOMISA**, a country between Cappadocia and mount Taurus.—Strabo.

**TOMOS**, or **TOMIS**, the capital of Lower Mæsia, seated on the Euxine Sea; thirty-six miles from the mouth of the Danube. It was round by a colony of Milesians, A. A. C. 633, and is famous for having been the place to which Ovid was banished by Augustus.—Strabo 7.

**TOMPION**, a sort of bung or cork used to stop the mouth of a cannon. At sea this is carefully encircled with tallow or putty, to prevent the penetration of the water into the bore, whereby the powder contained in the chamber might be damaged or rendered unfit for service.

**TOMPION** (Thomas), an English watchmaker of extraordinary merit, who flourished at London in the seventeenth century.

**TOMSK**, a considerable city of Asiatic Russia, and the capital of a large district, is situated on the right bank of the Tom, about twenty-five miles from its junction with the Obi: originally a mere wooden fort. Having been consumed, by a conflagration, it was rebuilt on a larger scale, but most irregular manner, in 1648. The ground itself is broken into heights and hollows; and in the old part of the town the streets are very narrow and winding. The kremlin, a fortress of the seventeenth century, is now almost entirely in ruins. Within its circuit, however, are the cathedral church, tribunals, treasury, and the magazines of furs collected as tribute. The principal edifice in the rest of the city is the church of the resurrection; there are also two convents, one of monks, and the other of nuns. The greater part of the inhabitants subsist by commerce, for which the place is very advantageously situated. It is the centre of the trade in brandy or whisky, which is brought hither from the distilleries on the Tobol and the Iset, and thence distributed to the countries eastward. Prevalent as intoxication is in Siberia, Pallas never saw a town where it was so general as here. Besides Russians, the place contains a great number of Tartar, Bucharian, and Kalmuck merchants. The population is stated at 11,000. The government which it comprehends contains a great part of the countries situated on the Obi, and most of those on the Yenisei. Long. 84° 10' E., lat. 56° 30' N.

**TOMTIT**, *n. s.* See **TITMOUSE**. A titmouse; a small bird.

You would fancy him a giant when you looked upon him, and a *tomtit* when you shut your eyes.

*Spectator.*

**TON**, *n. s.* Fr. *tonne*. See **TUN**. A measure or weight.

Spain was very weak at home, or very slow to move, when they suffered a small fleet of English to fire, sink, and carry away, ten thousand *ton* of their great shipping.

*Bacon.*

**TON**, in fashionable language, the fashion, the etiquette. It is used both as an adjective and as a noun substantive.

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**STONE**, *n. s.* French *ton*; Lat. *tonus*. Note: sound; accent; tension.

Sounds called *tones* are ever equal. *Bacon.*

In their motions harmony divine

So smooths her charming *tones*, that God's own ear  
Listens delighted. *Milton.*

Made children, with your *tones* to run for't,

As bad as bloody-bones or Lunsford. *Hudibras.*

Palamon replies,

Eager his *tone*. and ardent were his eyes. *Dryden.*

Each has a little soul he calls his own,

And each enunciates with a human *tone*. *Harte.*

Drinking too great quantities of this decoction  
may weaken the *tone* of the stomach. *Arbuthnot.*

**STONE**, or **TUNE**, in music, is a property of sound, whereby it comes under the relation of grave and acute; or the degree of elevation any sound has from the degree of swiftness of the vibrations of the parts of the sonorous body. The variety of tones in human voices arises partly from the dimensions of the windpipe, which, like a flute, the longer and narrower it is the sharper the tone it gives; but principally from the head of the larynx or knot of the throat; the tone of the voice being more or less grave as the rima or cleft thereof is more or less open.

**STONE** is taken in four different senses among the ancients: 1. For any sound; 2. For a certain interval, as when it is said the difference between the diapente and diatessaron is a tone; 3. For a certain focus or compass of the voice, in which sense they used the Dorian, Phrygian, and Lydian tones; 4. For tension, as when they speak of an acute, grave, or middle tone.

**STONE** is particularly used in music for a certain degree or interval of tune, whereby a sound may be either raised or lowered from one extreme of a concord to the other, so as still to produce true melody.

**STONE**, *n. s.* Sax. *tan*; Belg. *tung*. The **TONGS**. } catch of a buckle. Usually written tongue; but, as it has the same original with tongs, it should therefore have the same orthography.—Johnson. Tongs are the name of a well known instrument to take hold with, particularly of coals for the fire.

Their hilts were burnished gold, and handle strong,

Of mother pearl, and buckled with a golden *tong*.  
*Spenser.*

Another did the dying brands repair  
With iron *tongs*, and sprinkled oft the same  
With liquid waves. *Id.*

They turn the glowing mass with crooked *tongs*;  
The fiery work proceeds. *Dryden.*

Get a pair of *tongs* like a smith's *tongs*, stronger  
and toothed. *Mortimer.*

**TONGATABOO** is about sixty miles in circuit; oblong, though broadest at the east end, and having its greatest length from east to west. It is low but fruitful, except near the beach where coral rocks appear above the surface. Beneath the mould, which is about fifteen inches deep, is a red loam of four or five inches; next a very strong blue clay in small quantities; and in some places a black earth which emits a very fragrant smell resembling bergamot, but it soon evaporates. The air is pure and wholesome, and the plantations, in the midst of which the

principal houses are placed, very neatly enclosed. At a distance the surface seems entirely clothed with trees of various sizes. Above the rest the tall cocoa-palms always raise their tufted heads; and are a very considerable ornament to the country. The boogu, which is a species of fig, with narrow pointed leaves, is the largest tree of the island. Of cultivated fruits, the principal are plantains, of which they have fifteen different sorts or varieties; bread-fruit, two sorts of the fruit known at Otaheite under the name of jambo and eevee, the latter a kind of plum; and a vast number of shaddocks in a natural state. The roots are yams, of which there are two sorts; one black, and so large that it often weighs twenty or thirty pounds; the other white and long, seldom weighing a pound; a large root called kappe; one not unlike our white potatoes, called mawhaha; the taro, or coccos of other places; and another named jeejee. There is also found here a new species of Jesuits' bark, likely, it is said, to equal that of Peru. The only quadrupeds, besides hogs, are a few rats, and some dogs which are not natives of the place, but produced from some left by captain Cook in 1773, and by others from Fejee. The cattle left by captain Cook were all destroyed after he left the island. The horse and the mare having been gored by the bull, gave the natives an idea of his furious temper, and put them in terror. To prevent any accident, therefore, they destroyed him, with the cow and three young ones, which they informed the missionaries from the ship Duff, were all they had produced. Fowls of a large breed are domesticated here. Amongst the birds are parrots of an indifferent green on the back and wings, the tail bluish, and the rest of a sooty or chocolate brown; parrots not larger than a sparrow, of a fine yellowish green, with bright azure on the crown of the head, and the throat and belly red; besides another sort as large as a dove, having a blue crown and thighs, the throat, under part of the head, and part of the belly, crimson, and the rest a beautiful green; cuckoos, king-fishers, &c. There are also bats in great numbers, and some of such magnitude that the tips of their wings, when extended, are from three to four feet apart. Water-fowl, and such as frequent the sea, are numerous. The only noxious animals of the reptile or insect tribe are sea-snakes, scorpions, and centipedes. The many reefs and shoals on the north side of the island afford shelter for an endless variety of shell and other fish.

The inhabitants go unarmed, but have spears barbed in a dangerous manner, and their clubs very curiously carved. Their canoes are variously constructed; those used for the ordinary purposes of ferrying and fishing are small, but dexterously managed; and their war-boats, which possess much regularity of form, are very large and commodious. One of these was launched during the short period of the Union's stay, and was reported to be capable of carrying 300 men. According to the accounts of the missionaries, the people possess many excellent qualities. The manners of the lower classes, however, are licentious, and captain Turnbull represents the inhabitants in a very unfavorable light.

This island was discovered on the 27th of January, 1643, by Tasman, a Dutch navigator: the inhabitants came unarmed on board his ships, and exchanged hogs, fowls, and fruits, for European articles, which they also pilfered freely; but in other respects they behaved in the most courteous manner. It has since been visited by Cook in 1773; Perouse in 1777; Edwards in 1787; Messrs. D'Entrecasteaux and Huon in 1791; and by the missionary ship Duff. Several missionaries were at that time left here, but this mission did not succeed; and in the course of the war which broke out, the missionaries were in danger of their lives. Three of them were murdered at the instigation, according to Mariner who lived on the island, of one Morgan, a felon who had escaped from Botany Bay. Long. of the middle of the island, 175° W., lat. 21° 11' S.

TONG-TCHOUEN, a city of China, of the first rank, in Sechuen. Being on the Tartar frontier, it is strongly fortified, is called a military city, and the profession of a soldier descends from father to son. Besides their pay, they have land assigned them around the city. Long. 103° 2' E., lat. 26° 20' N.

|                                      |  |
|--------------------------------------|--|
| TONGUE, <i>n. s., v. a., &amp;c.</i> | } Sax. <i>tung</i> ; Belg. <i>tonghe</i> ; Goth. and Swed. <i>tunga</i> . The instrument of speech or of licking; speech; fluency; language; mere words; any thing of the shape of the animal tongue: to hold the tongue is to be silent: to tongue, to chide; scold; and, as a verb neuter, to talk; prate: tonguepad is a great talker: tonguetied is having an impediment in the speech: the other adjectives explain themselves. |
| TONGUED, <i>adj.</i>                 |  |
| TONGUELESS, <i>adj.</i>              |  |
| TONGUEPAD, <i>n. s.</i>              |  |
| TONGUETIED, <i>adj.</i>              |  |

The Lord shall bring a nation against thee, whose *tongue* thou shalt not understand. *Deuteronomy.*

The Lord shall destroy the *tongue* of the Egyptian sea. *Isaiah.*

Let us not love in word, neither in *tongue*, but in deed and in truth. *1 John.*

My conscience hath a thousand several *tongues*, And every *tongue* brings in a several tale, And every tale condemns me for a villain. *Shakespeare.*

But that her tender shame Will not proclaim against her maiden loss. How might she *tongue* me!" *Id.*  
'Tis still a dream; or else such stuff, as madmen *Tongue*, and brain not. *Id.*

That blood, like sacrificing Abel's, cries, Even from the *tongueless* caverns of the earth, To me, for justice. *Id.*

Love and *tonguetied* simplicity, In least speak most to my capacity. *Id.*  
He said; and silence all their *tongues* contained. *Chapman.*

So brave a knight was Tydeus, of whom a sonne is sprong, Inferiour farre in martiall deeds, though higher in his *tongue*. *Id.*

*Tongued* like the night-crow. *Donne.*  
So well he understood the most and best Of *tongue* that Babel sent into the west; Spoke them so truly, that he had, you'd swear, Not only lived, but been born every where. *Cowley*  
Who with the *tongue* of angels can relate? *Milton.*



With wondrous gifts endued,  
To speak all *tongues*, and do all miracles. *Id.*

They who have short *tongues*, or are *tongue-tied*, are apt to fall short of the appulse of the *tongue* to the teeth, and oftener place it on the gums, and say *t* and *d* instead of *th* and *dh*; as *moder* for *mother*. *Holder.*

*Tongue*-valiant hero, vaunter of thy might,  
In threats the foremost, but the lag in fight. *Dryden.*

Parrots, imitating human *tongue*,  
And singing birds in silver cages hung. *Id.*

'Tis seldom seen that senators so young  
Know when to speak, and when to hold their *tongue*. *Id.*

Much *tongue* and much judgment seldom go together;  
for talking and thinking are two quite different faculties. *L'Estrange.*

Though they have those sounds ready at their *tongue's* end, yet there are no determined ideas. *Locke.*

She who was a celebrated wit at London is, in that dull part of the world, called a *tongue-pad*. *Tatler.*

Whilst I live I must not hold my *tongue*,  
And languish out old age in his displeasure. *Addison.*

He spared the blushes of the *tonguetied* dame. *Tickel.*

I should make but a poor pretence to true learning,  
if I had not clear ideas under the words my *tongue* could pronounce. *Watts.*

An acquaintance with the various *tongues* is nothing but a relief against the mischiefs which the building of Babel introduced. *Id.*

**TONIC**, in medicine, tending to strengthen the part, or to restore its tone and functions.

**Tonic**, in music, signifies a certain degree of tension, or the sound produced by a vocal string in a given degree of tension, or by any sonorous body when put in vibration.

**Tonic**, says Rousseau, is likewise the name given by Aristoxenus to one of the three kinds of chromatic music, whose divisions he explains, and which was the ordinary chromatic of the Greeks, proceeding by two semitones in succession, and afterwards a third minor.

**TON'ICAL**, *adj.* } Fr. *tonique*. Gr. *ταυνω*.  
**TON'ic**. } Being extended; being elastic.

Station is no rest, but one kind of motion, relating unto that which physicians, from Galen, do name extensive or *tonical*. *Broune.*

**TONNAGE**, *n.s.* From *ton*. A custom or impost due for merchandise, brought or carried in tons from or to other nations, after a certain rate in every ton.

*Tonnage* and poundage upon merchandises were collected, refused to be settled by act of parliament. *Clarendon.*

**TONNAGE AND POUNDAGE**, an ancient duty on wine and other goods, the origin of which seems to have been this:—About the twenty-first of Edward III. complaint was made that merchants were robbed and murdered on the seas. The king thereupon, with the consent of the peers, levied a duty of two shillings on every ton of wine, and one shilling in the pound on all goods imported; which was treated as illegal by the commons. About twenty-five years after, the king, when the knights of shires were returned home,

obtained a like grant from the citizens and but-  
gesses, and the year after it was regularly granted in parliament. These duties were diminished sometimes, and sometimes increased; at length they seem to have been fixed at three shillings tonnage and one shilling poundage. They were at first usually granted only for a stated term of years, as for two years in 5 Richard II.; but in Henry VI.'s time they were granted him for life by a statute in the thirty-first year of his reign; and again to Edward IV. for the term of his life also; since which time they were regularly granted to all his successors for life, sometimes at the first, sometimes at other subsequent parliaments, till the reign of Charles I., when these imposts were imprudently and unconstitutionally levied, without consent of parliament, for fifteen years, which was one of the causes of the unhappy discontents. At the Restoration this duty was granted to king Charles II. for life, and so it was to his two immediate successors; but now, by three several statutes, 9 Anne, c. 6; 1 Geo. I. c. 12; and 3 Geo. I. c. 7, it is made perpetual, and mortgaged for the debt of the public.

**TONNERRE**, **Mont**, a large mountain in the west of Germany, on the left bank of the Rhine, ten miles from Worms, and twenty-five from Mentz. It is nearly 2300 feet above the level of the Rhine, and has, about half way up its side, the village of Donnersfeld. The French gave the name of this mountain to a department which comprehended the greater part of the electorate of Mentz, the Lower Palatinate, the bishoprics of Spire and Worms, with several counties and lordships. Its extent was 2700 square miles; its population 430,000. At the congress of Vienna, it was divided between Austria and Hesse-Darmstadt.

**TONNERRE**, a town in the department of the Yonne, France, situated on the Armengon. It contains manufactures of glass, pottery, and hats; and has also a traffic in the wine of the vicinity, known by the name of Vin de Tonnerre. It is still surrounded with a rampart, and has a population of 4400. Twenty miles east by north of Auxerre.

**TONORU**, an ancient city of the south of India, province of Mysore. Some parts of the fortification still remain. It is, however, most celebrated for its magnificent reservoir, formed by a lofty mound, between two mountains. Tipu Sultan cut down part of the mound, in order to destroy this monument of antiquity; but it has since been repaired.

**TONSBERG**, a town of Norway, in the province of Aggerhuus, situated on a bay of the Baltic, and said to be the most ancient town in the kingdom. It now contains only about 200 wooden houses: but its harbour, though difficult of access, is capable of receiving large vessels. Its trade consists chiefly in the export of timber. In 1536 it was laid in ashes by the Swedes, and has never recovered this disaster. Forty-two miles south of Christiania.

**TON'SIL**, *n.s.* Fr. *tonsille*; Lat. *tonsille*. Defined below.

*Tonsils* or almonds are two round glands placed on the sides of the basis of the tongue, under the common membrane of the fauces, with which they are

covered ; each of them hath a large oval sinus, which opens into the fauces, and in it there are a great number of lesser ones, which discharge themselves through the great sinus, of a mucous and slippery matter, into the fauces, larynx, and œsophagus, for the moistening and lubricating these parts. *Quincy.*

**TONSTALL** (Cuthbert), a learned English prelate, born in 1476. He studied at Oxford, Cambridge, and Padua; and was the best mathematician of his age. He was made bishop of London in 1522; in 1523 lord privy seal; and in 1530 bishop of Durham. But in 1559 he was ejected by queen Elizabeth, and died in prison that year. He published some tracts on religion; and a treatise, *De Arte Supputandi*, London, 1522, 4to.

**TONSURE**, *n. s.* Fr. *tonsure*; Lat. *tonsurâ*. The act of clipping the hair; state of being shorn.

The vestals, after having received the *tonsure*, suffered their hair to come again, being here full grown, and gathered under the veil. *Addison.*

**TONSURE**, in ecclesiastical history, a particular manner of shaving or clipping the hair of ecclesiastics or monks. The ancient tonsure was only cutting the hair to a moderate degree, for the sake of decency and gravity; but the Romans make the candidate kneel before the bishop, who cuts the hair in five different parts of the head, viz. before, behind, on each side, and on the crown.

**TONTINE**, a loan given for life annuities with benefit of survivorship; so called from the inventor Laurence Tonti, a Neapolitan. He proposed his scheme in 1653 to reconcile the people to cardinal Mazarine's government, by amusing them with the hope of becoming suddenly rich. He obtained the consent of the court, but the parliament would not register the edict. He made attempts afterwards, but without success. It was not till Louis XIV. was distressed by the league of Augsburg, and by his own immense expenses, that he had recourse to the plans of Tonti. By an edict in 1689 he created a Tontine royale of 1,400,000 livres annual rent, divided into fourteen classes. The actions were 300 livres a piece, and the proprietors were to receive £10 per cent. with benefit of survivorship in every class. This scheme was executed but very imperfectly. A few years after, another tontine was erected upon nearly the same terms, but this was never above half full. They both subsisted in 1726, when the French king united the thirteenth class of the first tontine with the fourteenth of the second; all the actions of which were possessed by Charlotte Bonnemay, widow of Louis Barbier, a surgeon of Paris, who died at the age of ninety-six. This gentlewoman had ventured 300 livres in each tontine; and in the last year of her life she had for her annuity 73,500 livres, or about £3600 a year, for about £30. The nature of the tontine is this:—There is an annuity, after a certain rate of interest, granted to a number of people, divided into classes, according to their respective ages; so that annually the whole fund of each class is divided among the survivors of that class; till at last it falls to one, and, upon the extinction of that life, reverts to the power by which the ton-

tine was erected, and which becomes thereby security for the due payment of the annuities.

**TOO**, *adv.* Sax. *to*; Belg. *te*. Over and above; overmuch. It is used to augment the signification of an adjective or adverb; sometimes doubled; likewise; also.

See what a scourge is laid upon your hate;  
And I, for winking at your discords too,  
Have lost a brace of kinsmen.

*Shakspeare. Romeo and Juliet.*

Oh, that this too too solid flesh would melt!

*Shakspeare.*

Sometimes it would be full, and then,

Oh! too too soon decrease again;

Eclipsed sometimes, that 'twould so fall,

There would appear no hope at all.

*Suckling.*

Your father's rough and stern,

His will too strong to bend, too proud to learn.

*Cowley.*

Let on my cup no wars be found,

Let those incite to quarrels too,

Which wine itself enough can do.

*Oldham.*

It is too much to build a doctrine of so mighty consequence upon so obscure a place of scripture.

*Locke.*

Groundless prejudices and weaknesses of conscience, instead of tenderness, mislead too many others, too many, otherwise good men.

*Sprat's Sermons.*

The arriving to such a disposition of mind as shall make a man take pleasure in other men's sins is evident from the text, and from experience too. *South.*

Let those eyes that view

The daring crime behold the vengeance too. *Pope.*

These ridiculous stories abide with us too long, and too far influence the weaker part of mankind. *Watts.*

**TOOBOUAI ISLAND**, one of the Society islands, in the South Pacific. See **SOCIETY ISLANDS**.

**TOOFOA**, one of the Friendly islands, visible from Annamooka, by means of its height, and a volcano, which almost constantly emitted smoke, and sometimes threw up stones. Its shores are steep, and covered with black sand. The rocks are hollow, and in some places of a columnar form. The mountain, except in spots that appear to have been recently burned, is covered with verdure, shrubs, and trees. The coast is about five leagues in circuit. To the north-east of this island, and about two miles distant, is another of much less extent, but of thrice its height, which is called Kao; it is a mountainous rock of a conical form. Both these were discovered by Tasman, and have been seen by every subsequent navigator of this group.

**TOOK**, the *preterite*, and sometimes the *participle passive* of take.

Thy soldiers,

All levied in my name, have in my name

Took their discharge. *Shakspeare. King Lear.*

Suddenly the thunder-clap

Took us unprepared.

*Dryden.*

He is God in his friendship as well as in his nature, and therefore we sinful creatures are not took upon advantages, nor consumed in our provocations.

*South's Sermons.*

Leaving Polybus, I took my way

To Cyrrha's temple. *Pope's Statius.*

The riders would leap them over my hand; and one of the emperor's huntsmen, upon a large courser, took my foot, shoe and all. *Swift.*



**TOOKE** (Andrew), M. A., a learned divine and teacher, born at London in 1673. He was educated at the Charter House, whence he removed to Clare Hall, Cambridge. He became master of the Charter House, and professor of geometry at Gresham College. He published Pomey's Pantheon in English, but without acknowledging the author. He died in 1731.

**TOOKE** (George), an English poet, born in 1595. He served as captain of volunteers in the expedition against Cadiz in 1625, and published the particulars in a poem. He also wrote Canzonets to the memory of his wife. He died in 1675.

**TOOKE** (John Horne) was educated at the Eton school, and the freedom of his remarks is said to have rendered him obnoxious, even at that early period, to his superiors. He afterwards removed to St. John's College, Cambridge, where he also created himself enemies by similar liberality (perhaps licentiousness) of opinion. At the usual period he appears to have taken orders in the established church; and, while curate of Brentford, espoused the cause of Wilkes with great warmth and success. Soon after, he set on foot a subscription for the relief of the widows, orphans, and aged parents of the Americans, whom he described as murdered at Lexington by the king's troops. He was prosecuted for his advertisement on this subject, found guilty of a libel, and committed to prison. He is said to have been the chief cause of obtaining the regular publication of the speeches in parliament. Mr. Tooke now appears to have sided, in his political views, neither with the opposition nor the ministry. He treated both parties occasionally with almost equal keenness of satire. In the year 1794 he was brought to trial for high treason, and acquitted. He was afterwards returned to parliament by the city of Westminster, when his right to sit was challenged by lord Temple, on account of his being in holy orders. It was not found easy to decide the question. Mr. Tooke was therefore allowed to keep his seat during that parliament, and a declaratory act was passed to prevent the clergy from sitting in the House of Commons in future. He lived for many years at Wimbledon, and died at an advanced age. Sir Francis Burdett was his latest friend and pupil, and is understood to have acted by Mr. Tooke's advice in resisting the warrant of the speaker of the House of Commons to commit him to the tower—a resistance which cost several lives. Mr. Tooke was a man of fine talents and considerable literature. His diversions of Purley have deservedly raised his fame as a philosophical grammarian; though it will probably be now generally allowed that he carried his etymological decisions to an extravagant length.

**TOOKE** (William), F. R. S., a native of Islington, born 1744, was bred a printer; but, having obtained ordination, went out to Russia as chaplain to the English factory at Cronstadt, which situation he subsequently exchanged for one of a similar description at St. Petersburg. He is known as the author of a History of Russia; a Life of the Empress Catharine II.; A View of the Russian Empire; a miscellany en-

titled Varieties of Literature, 8vo. 2 vols.; and as the translator of Lucian (in two quarto vols.) and the sermons of Zollikoffer. His death took place in England in 1820.

**TOOL**, *n. s.* Sax. *tol*, *tool*. Any instrument of manual operation; hence a hireling; a time-server.

In mulberries the sap is towards the bark only, into which if you cut a little, it will come forth; but, if you pierce it deeper with a *tool*, it will be dry.

*Bacon.*

They found in many of their mines more gold than earth; a metal which the Americans, not regarding, greedily exchanged for hammers, knives, axes, and the like *tools* of iron.

*Heylyn.*

Armed with such gardening *tools* as art, yet rude, Guiltless of fire had formed. *Milton's Paradise Lost.*

The ancients had some secret to harden the edges of their *tools*.

*Addison.*

He'd choose

To talk with wits in dirty shoes;  
And scorn the *tools* with stars and garters,  
So often seen caressing Chartres.

*Swift.*

**TOORMOOZ**, **TIRMOZ**, or **TERMED**, a city of independent Tartary, to the north of the Oxus, near its junction with the Hissaur. It is described as a place of considerable importance, and celebrated in history for the siege laid to it by Genghis Khan, in 1221. After eleven days, that conqueror took and destroyed it; but it was rebuilt in the following century. Fifty miles north of Bulkha.

**TOOT**, *v. n.* Saxon, *totan*, contracted from *totetan*, to know or examine. To pry; peep; search narrowly and slyly. Obsolete.

I cast to go a shooting,  
Long wandering up and down the land,  
With bow and bolts on either hand,

For birds and bushes *tooting*. *Spenser's Pastorals.*

This writer should wear a *tooting* horn. *Howel.*

**TOOTH**, *n. s. & v. a.* *Plural* teeth. Sax.

**TOOTH'ACH**, *n. s.* *toð*; Swed. *Dan.* Belg.

**TOOTH'DRAWER**, and Goth. *tand*; Lat.

**TOOTH'LESS**, *adj.* *dens, dentis.* The small

**TOOTH'PICK**, *n. s.* bones used in mastication:

**TOOTH'PICKER**, hence taste;

**TOOTH'SOME**, *adj.* palate; any prong or

**TOOTH'SOMENESS**. time; the cog or catch

of a wheel: 'to the teeth' is an open opposition: 'to cast in the teeth,' to insult openly: 'in spite of the teeth,' in spite of threats (which show the teeth): 'tooth and nail' is with the utmost violence: to tooth is to furnish with teeth; indent; lock together: toothsome is palatable; agreeable to the taste: the other derivatives are of obvious meaning.

The priest's servant came while the flesh was in seething, with a flesh hook of three *teeth*.

*I Sam. ii. 13.*

If *toothpicks* of the lentisc be wanting, of a quill then make a *toothpick*.

*Sandys.*

A wise body's part it were not to put out his fire, because his fond and foolish neighbour, from whom he borrowed wherewith to kindle it, might cast him therewith in the *teeth*, saying, Were it not for me thou wouldst freeze, and not be able to heat thyself.

*Dooker.*

Avant, you curs!

Be thy mouth or black or white,

Tooth that poisons if it bite.

*Shakespeare. King Lear.*

Desert deserves with characters of brass  
A fortified residence against the tooth of time,  
And rature of oblivion. *Shakespeare.*

It warms the very sickness in my heart,  
That I shall live and tell him to his teeth,  
Thus diddest thou. *Id. Hamlet.*  
The guiltiness of my mind drove the grossness of  
the foppery into a received belief, in despite of the  
teeth of all rhyme and reason, that they were fairies.  
*Shakespeare.*

There never yet was the philosopher  
That could endure the toothach patiently,  
However at their ease they talked like gods. *Id.*  
He that sleeps feels not the tooth-ach. *Id. Cymbeline.*

I have the tooth-ach.  
—What, sigh for the tooth-ach!  
Which is but an humour or a worm. *Shakespeare.*  
I will fetch you a toothpicker from the farthest inch  
of Asia. *Id. Much Ado About Nothing.*  
Some are good to be eaten while young, but  
nothing toothsome as they grow old. *Carew.*  
Nature with Scots as tough-drawers hath dealt,  
Who use to string their teeth upon their belt.  
*Cleveland.*

Preserve my woods, whereof, if this course hold,  
there will hardly be found in some places enough to  
make a toothpick. *Hovel's England's Tears.*

One was grown desperate with the toothach. *Temple.*

These are not dishes for thy dainty tooth;  
What, hast thou got an ulcer in thy mouth?  
Why stand'st thou picking? *Dryden.*  
Then saws were toothed, and sounding axes made.  
*Id.*

The way to our horses lies back again by the  
house, and then we shall meet 'em full in the teeth. *Id.*

Deep-dinted wrinkles on her cheek she draws,  
Sunk are her eyes, and toothless are her jaws. *Id.*  
A lion and bear were at tooth and nail which should  
carry off a fawn. *L'Estrange.*

The only way is not to grumble at the lot they  
must bear in spite of their teeth. *Id.*

They are fed with flesh minced small, having not  
only a sharp head and snout, but a narrow and  
toothless snout. *Ray.*

In clocks, though the screws and teeth be never so  
smooth, yet, if they be not oiled, will hardly move,  
though you clog them with never so much weight;  
but, apply a little oil, they whirl about very swiftly  
with the tenth part of the force. *Id.*

The teeth alone among the bones continue to grow  
in length during a man's whole life, as appears by  
the unsightly length of one tooth when its opposite  
happens to be pulled out. *Id. on the Creation.*

Lentisc is a beautiful ever-green, and makes the  
best toothpickers. *Mortimer's Husbandry.*

Get a pair of tongs like a smith's tongs, stronger,  
and toothed at the end. *Id.*

It is common to tooth in the stretching course two  
inches with the stretcher only. *Moran's Mechanical Exercises.*

The point hooked down like that of an eagle; and  
both the edges toothed, as in the Indian crow. *Grew's Muscum.*

I made an instrument in fashion of a comb, whose  
teeth, being in number sixteen, were about an inch  
and an half broad, and the intervals of the teeth  
about two inches wide. *Newton's Opticks.*

When the teeth are to be dislocated, a tooth-drawer  
is consulted. *Wiseman's Surgery.*

When the law shows her teeth, but dare not bite,  
And South-Sea treasures are not brought to light.  
*Young.*

TOP, *n. s., adj., v. n., & v. a.*  
TOPGAL'LANT, *n. s.*  
TOPHEAV'Y, *adj.*  
TOP'KNOT, *n. s.*  
TOP'LESS, *adj.*  
TOP'MAN, *n. s.*  
TOP'MOST, *adj.*  
TOP'PING, *adj.*  
TOP'PINGLY, *adv.*  
TOP'PLE, *v. n.*  
TOP'PROUD, *adj.*  
TOP'ROUND, *adj.*  
TOP'SAIL, *n. s.*  
TOPSYTURVY, *adv.*

Sax. *top*; Swed.  
Dan. Belg. and  
Welsh *top*; Teut.  
*topt*. The highest  
part of a thing;  
highest place or  
rank: hence crown  
of the head; sur-  
face; and hence,  
perhaps, the toy  
so called, from its  
resemblance to the  
fruit of the fir, a  
high tree: as an

adjective, lying on or at the top: to top is to rise  
aloft; be eminent or conspicuous; excel: as a  
verb active, to tip; cover or defend on the tip;  
rise above; rise to the uppermost part of; trans-  
cend; crop: the topgallant is the highest sail:  
hence any thing elevated or splendid: topknot,  
a knot worn on the top of the head: topping  
and toppingly both mean fine; noble; gallant:  
to topple, to fall down; tumble: topproud,  
proud in a high degree: topsail, a high sail:  
topsyturvy, as Skinner thinks, from 'top in  
turf', bottom upwards (Thomson, top-side, and  
Goth. *tuëris*, as the Swed. say *twæris*, re-  
versed): the other compounds do not seem to  
require explanation.

These toppinglie ghests be in number but ten,  
As welcome to dairie as beares among men. *Tusser.*

All suddenly was turned topsyturvy, the noble lord  
Eftsoons was blamed, the wretched people pitied,  
and new counsels plotted. *Spenser on Ireland.*

Contareus, meeting with the Turk's gallies, which  
would not vail their topsails, fiercely assailed them.  
*Knolles.*

If we without his help can make a head  
To push against the kingdom; with his help  
We shall o'return it topsyturvy down.

*Shakespeare. Henry IV.*

Though bladed corn be lodged, and trees blown  
down;

Though castles topple on their warders' heads.

*Shakespeare.*

The wisest aunt telling the saddest tale,  
Sometime for three foot stool mistaketh me;  
Then slip I from her quite, down topples she. *Id.*

This top-proud fellow,

By intelligence I do know

To be corrupt and treasonous. *Id.*

Since I pluckt geese, played truant, and whipt  
top, I knew not what it was to be beaten till lately.  
*Id.*

Let 's take the instant by the forward top;  
For we are old, and on our quickest decrees  
'The' inaudible and noiseless foot of time  
Steals, ere we can effect them. *Id.*

Tis a per'fous boy,  
Bold, quick, ingenious, forward, capable;  
He's all the mother's from the top to toe.

*Shakespeare.*

He wears upon his baby brow the round  
And top of sovereignty. *Id. Macbeth.*

'Tis wonderful  
What may be wrought out of their discontent;  
Now that their souls are topful of offence.

*Shakespeare.*

So far he topped my thought,  
That I in forgery of shapes and tricks  
Come short of what he did. *Id.*



Plants that draw much nourishment from the earth, hurt all things that grow by them, especially such trees as spread their roots near the top of the ground. *Bacon's Natural History.*

He sent abroad his voice,  
Which Pallas far off echoed; who did betwixt them  
hoise  
Shrill tumult to a *topless* height. *Chapman's Iliad.*  
Wave woundeth wave again, and billow billow  
gores,  
And *topsyturvy* so fly tumbling to the shores. *Dryden.*

A roof should not be too heavy nor too light; but of the two extremes a house *topheavy* is the worst. *Watton's Architecture.*

One poor roof, made of poles meeting at the top,  
and covered with the bark of trees. *Heylin.*  
Here Sodom's towers raise their proud tops on  
high;

The towers as well as men outbrave the sky. *Cowley.*

If aught obstruct thy course, yet stand not still  
But wind about till thou hast *topped* the hill. *Denham.*

Thou nor on the top of old Olympus dwell'st. *Milton.*

The glorious temple reared  
Her pile, far off appearing like a mount  
Of alabaster, *topped* with golden spires. *Id.*

Here is a mount, whose *toppe* seems to despise  
The farre inferior vale that underlies:  
Who, like a great man raised aloft by fate,  
Measures his height by others' mean estate. *Browne.*

For as whipped tops, and banded balls,  
The learned hold, are animals; and  
So horses they affirm to be  
Mere engines made by geometry. *Hudibras.*

To him the fairest nymphs do show  
Like moving mountains *topt* with snow. *Waller.*  
Till a considerable part of the air was drawn out  
of the receiver, the tube continued *topful* of water as  
at first. *Boyle.*

That government which takes in the consent of the  
greatest number of the people, may justly be said to  
have the broadest bottom; and, if it terminate in the  
authority of one single person, it may be said to  
have the narrowest *top*, and so makes the firmest py-  
ramid. *Temple.*

As young striplings whip the *top* for sport,  
On the smooth pavement of an empty court,  
The wooden engine flies and whirls about,  
Admired with clamours of the beardless rout. *Dryden.*

But write thy best and *top*, and in each line  
Sir Formal's oratory will be thine. *Id.*

*Topheavy* drones, and always looking down,  
As over-ballasted within the crown,  
Muttering betwixt their lips some mystick thing. *Id.*

A swarm of bees,  
Unknown from whence they took their airy flight,  
Upon the *topmost* branch in clouds alight. *Id. Æner.*

Strike, strike the *topsail*; let the main sheet fly,  
And furl your sails. *Id. Fables.*

This arrogance amounts to the pride of an ass in  
his trappings; when 'tis but his master's taking  
away his *topknot* to make an ass of him again. *L'Estrange.*

A gourd planted by a large pine, climbing by the  
boughs twined about them, till it *topped*, and covered  
the tree. *Id.*

I dare appeal to the consciences of *topgallant*  
sparks. *Id.*

Take a boy from the top of a grammar school, and

one of the same age bred in his father's family, and  
bring them into good company together, and then  
see which of the two will have the more manly car-  
riage. *Locke on Education.*

The thoughts of the mind are uninterruptedly em-  
ployed by the determinations of the will, influenced  
by that *topping* uneasiness while it lasts. *Locke.*

The *top* stones laid in clay are kept together. *Mortimer.*

*Top* the bank with the bottom of the ditch. *Id.*  
*Top* your rose trees a little with your knife near a  
leaf bud. *Evelyn's Kalendar.*

The pitsaw enters the one end of the stuff, the  
*topman* at the *top*, and the pitman under him, the  
*topman* observing to guide the saw exactly in the line. *Moxon's Mechanical Exercises.*

The *topping* fellow I take to be the ancestor of the  
fine fellow. *Tatler.*

Zeal being the *top* and perfection of so many re-  
ligious affections, the causes of it must be most emi-  
nent. *Sprat.*

God told man what was good, but the devil sur-  
named it evil, and thereby turned the world *topsyturvy*,  
and brought a new chaos upon the whole creation. *South.*

Men piled on men with active leaps arise,  
And build the breathing fabrick to the skies;  
A sprightly youth, above the *topmost* row,  
Points the tall pyramid, and crowns the show. *Addison.*

There are other churches in the town, and two or  
three palaces, which are of a more modern make, and  
built with a good fancy; I was shown the little  
Notre Dame; that is handsomely designed, and  
*topped* with a cupola. *Id.*

I am, cries the envious, of the same nature with  
the rest: why then should such a man *top* me?  
Where there is equality of kind, there should be no  
distinction of privilege. *Collier.*

Those long ridges of lofty and *topping* mountains  
which run east and west, stop the evagation of the  
vapours to the north and south in hot countries. *Derham's Physico-Theology.*

So up the steepy hill with pain  
The weighty stone is rowled in vain;  
Which having touched the *top* recoils,  
And leaves the labourer to renew his toils. *Granville.*

Marine bodies are found upon hills, and at the  
bottom only such as have fallen down from their  
tops. *Woodcock.*

Still humming on their drowsy course they keep,  
And lashed so long, like *tops*, are lashed asleep. *Pope.*

The *top* of my ambition is to contribute to that  
work. *Id.*

As to stiff gales *topheavy* pines bow low  
Their heads, and lift them as they cease to blow. *Id.*

Man is but a *topsyturvy* creature; his head where  
his heels should be, grovelling on the earth. *Swift.*  
Fill the largest tankard-cup *topful*. *Id.*

One was ingenious in his thoughts, and bright in  
his language; but so *topful* of himself, that he let it  
spill on all the company. *Watts on the Mind.*

The buds made our food are called heads or *tops*,  
as cabbage heads. *Id.*

A *top* may be used with propriety in a similitude  
by a Virgil, when the sun may be dishonoured by a  
Mævius. *Broome.*

Top, in ship-building, a sort of platform sur-  
rounding the lower mast-head, from which it  
projects on all sides like a scaffold. The prin-  
cipal intention of the top is to extend the top-  
mast shrouds, so as to form a greater angle with

the mast, and thereby give an additional support to the latter. It is sustained by certain timbers fixed across the hounds or shoulders of the mast, and called the trestle-trees and cross-trees. Besides the use above-mentioned, the top is otherwise extremely convenient to contain the materials necessary for extending the small sails, and for fixing or repairing the rigging and machinery with more facility and expedition. In ships of war it is used as a kind of redoubt, and is accordingly fortified for attack or defence; being furnished with swivels, musketry, and other fire-arms, and guarded by a thick fence of corded hammocks. Finally it is employed as a place for looking out, either in the day or night.

**TOPARCH**, *n. s.* Gr. *τοπος* and *αρχη*. The principal man in a place.

They are not to be conceived potent monarchs, but *toparchs*, or kings of narrow territories.

*Browne's Vulgar Errors.*

**TOPAZ**, *n. s.* Fr. *topaze*; low Lat. *topazius*. A yellow gem.

Can blazing carbuncles with her compare?

The *tophas* sent from scorched Meroe?

Or pearls presented by the Indian sea?

*Sundys's Parageon.*

The golden stone is the yellow *topaz*.

*Bacon's Natural History.*

With light's own smile the yellow *topaz* burns.

*Thomson.*

**TOPAZ**, in mineralogy, a gem called by the ancients chrysolite, as being of a gold color; but now ranked as only a variety of the sapphire. See **MINERALOGY**. The finest topazes in the world are found in the East Indies; but they are very rare there of any great size; the great Mogul, however, possesses one which is said to weigh 157 carats, and to be worth more than £20,000. The topazes of Peru are next in beauty and in value. The European are principally found in Silesia and Bohemia, and are generally full of cracks and flaws, and of a brownish yellow. Very beautiful stones of this kind are found in Arran and Cairngorm, in Scotland.

According to professor Jameson, this mineral species contains three sub-species, common topaz, schorlite, and physalite.

*Common topaz*.—Color wine-yellow. In granular concretions, disseminated and crystallised. Its primitive form is an oblique prism of 124° 22'. The following are secondary forms. An oblique four-sided prism, acuminate by four planes; the same, with the acute lateral edges bevelled; the same, with a double acumination; and several other modifications, for which consult Jameson's *Min.* vol. I. p. 75. The lateral planes are longitudinally streaked. Splendent and vitreous. Cleavage perfect and perpendicular to the axis of the prism. Fracture, small conchoidal. Transparent. Refracts double. Harder than quartz, or emerald; but softer than corundum. Easily frangible. Specific gravity 3·4 to 3·6. Saxon topaz in a gentle heat becomes white, but a strong heat deprives it of lustre and transparency. The Brazilian, on the contrary, by exposure to a high temperature, burns rose-red, and in a still higher violet-blue. Before the blowpipe it is infusible. The topaz

of Brasil, Siberia, Mucla in Asia-Minor, and Saxony, when heated, exhibit at one extremity positive, and at the other negative, electricity. It also becomes electrical by friction; and retains its electricity very long. Its constituents are:—

|                  | Bras. Top. | Sax. T. | Sax. T |
|------------------|------------|---------|--------|
| Alumina . . .    | 58·38      | 57·45   | 59     |
| Silica . . .     | 34·01      | 34·24   | 33     |
| Fluoric acid . . | 7·79       | 7·75    | 5      |
|                  | 100·18     | 99·44   | 99     |
|                  | Berzelius. | Klapr.  | Klapr. |

Topaz forms an essential constituent of a particular mountain rock, which is an aggregate of topaz, quartz, and schorl, and is named topaz-rock. Topaz occurs in drusy cavities in granite. It has been also discovered in nests, in transition clay-slate; and it is found in rolled pieces in alluvial soil. It occurs in large crystals, and rolled masses, in an alluvial soil, in the granite and gneiss districts of Mar and Cairngorm, in the upper parts of Aberdeenshire; and in veins, along with tin-stone, in clay-slate at St. Anne's, Cornwall. On the continent it appears most abundantly in topaz-rock at Schneckenstein.—Jameson.

**TOPAZ**, in geography, an island in the Red Sea, so named, according to Pliny, from *τοπαζω*, to seek, being often surrounded with fog, and difficult to find. It was famous for topazes. See *Plin. lib. xxxvii. c. 8.*

**TOPAZOLITE** is a variety of precious garnet found at Mussa in Piedmont.

**TOPE**, *v. n.* Fr. *tope*; Teut. *topff*, an earthen pot; Belg. *toppen*, to be mad. Skinner prefers the latter etymology. To drink hard; drink to excess.

If you *tope* in form and treat,  
'Tis the sour sauce to the sweet meat,

The fine you pay for being great. *Dryden.*

**TOPE**, in ichthyology, a species of squalus.

**TOPHA'CEOUS**, *adj.* Lat. *tophus*. Gritty; stony.

Acids mixed with them precipitate a *tophaceous* chalky matter, but not a cheesy substance.

*Atterbury.*

**TOPHIET**, *n. s.* Heb. *תפת*, a drum. Hell: a scriptural name.

The pleasant valley of Hinnom, *Tophet* thence  
And black Gehenna called, the type of hell.

*Milton.*

Fire and darkness are here mingled with all other ingredients that make that *Tophet* prepared of old.

*Burnet.*

**TOPHUS**, in medicine, a chalky or stony concretion in any part of the body, as the bladder, kidney, &c., but especially the joints.

**TOPIC**, *n. s.* Fr. *topique*; Gr. *τοπος*.

**TOPICAL**, *adj.* } Principle of persuasion;

**TOPICALLY**, *adv.* } general head; in medicine,  
some local application: the adjective and adverb corresponding.

*Topical* or probable arguments, either from consequence of scripture, or from human reason, ought not to be admitted or credited against the consistent testimony and authority of the ancient catholic church.

*White.*



What then shall be rebellion? shall it be more than a *topical* sin, found indeed under some monarchical medicines?

*Holyday.*

Contumacious persons, who are not to be fixed by any principles, whom no *topicks* can work upon.

*Wilkins.*

Evidences of fact can be no more than *topical* and probable.

*Hales Origin of Mankind.*

An argument from authority is but a weaker kind of proof; it being but a *topical* probation, and an artificial argument, depending on naked asseveration.

*Broune.*

This *topically* applied becomes a phænigmus, or rubifying medicine, and is of such fiery parts, that they have of themselves conceived fire and burnt a house.

*Id. Vulgar Errors.*

I might dilate on the difficulties, the temper of the people, the power, arts, and interest of the contrary party; but those are invidious *topicks*, too green in remembrance.

*Dryden.*

Let them argue over all the *topicks* of divine goodness and human weakness, and whatsoever other pretences sinking sinners catch at to save themselves by, yet how trifling must be their plea!

*South's Sermons.*

In the cure of strumæ, the *topicks* ought to be discutient.

*Wiseman's Surgery.*

The principal branches of preaching are, to tell the people what is their duty, and then convince them that it is so: the *topicks* for both are brought from scripture and reason.

*Swift.*

All arts and sciences have some general subjects, called *topicks*, or common places; because middle terms are borrowed, and arguments derived from them for the proof of their various propositions.

*Watts's Logic.*

TOPICS, in oratory. See ORATORY.

TOPICS, or TOPICAL MEDICINES, are the same with the external ones, or those applied outwardly to some diseased and painful parts; such are plasters, cataplasms, unguents, &c.

TOPLADY (Augustus Montague), M. A., a late celebrated English divine, born at Farnham, in Surrey, in 1735; and educated at Westminster and Dublin. He became vicar of Broadhembury, Devonshire; but removed to London for his health, where he died in 1778. He wrote *Historic Proof of the Doctrinal Calvinism of the Church of England*; and other works, in 6 vols. 8vo.

TOP-MAST, the second division of a mast, or that part which stands between the upper and lower pieces. See MAST.

TOPOGRAPHY, *n. s.* Fr. *topographie*; Gr. *τοπος* and *γραφω*. Description of particular places.

That philosophy gives the exactest *topography* of the extramundane spaces.

*Glanville's Scepsis.*

The *topography* of Sulmo in the Latin maps but an awkward figure in the version.

*Cromwell.*

TOPSAILS are certain large sails extended across the top-masts by the topsail-yard above, and by the yard attached to the lower mast beneath; being fastened to the former by robands, and to the latter by means of two great blocks fixed on its extremities, through which the topsail sheets are inserted, passing thence to two other blocks fixed on the inner part of the yard close by the mast; and from these latter the sheets lead downwards to the deck, where they may be slackened or extended at pleasure. See SAIL.

TOPSHAM, a sea-port and market-town, parish of Wonford hundred, Devon, nearly surrounded by the rivers Clyst and Exe, three miles and a half S. S. E. from Exeter, and 170 south-west from London. The town consists of several good streets, the houses are well built, and here is a very long and commodious quay. The southern extremity, called the Strand, is the most agreeable, as the river flows within a short distance of the houses, which have a beautiful view. The church stands near the centre of the town. This town is considered as the port of Exeter, as all large vessels here take in and discharge their cargoes. It is also the station of the officers of the customs and excise. The road between this town and Exeter is remarkably pleasant, and is made more so by the many agreeable seats that are scattered near it. High water at full and change, half past six o'clock. Market on Saturday. Fair, St. Margaret's-day.

TOPSHAM, a considerable township of the United States, in Lincoln county, Maine, on the north side of the Androscoggin, opposite Brunswick, nineteen miles west of Wiscasset, and 140 north-east of Boston.

TOR, an ancient town of Arabia, near the head of the Red Sea. It was once of great importance, and a great part of the merchandise conveyed to Syria and India was landed here. Since Suez became the emporium of the Red Sea, Tor has sunk into insignificance; and only the vessels which are prevented by strong northerly winds from reaching Suez unload their cargoes at Tor. The harbour is formed by a reef of coral rocks, and to the northward by a low point of land, on which is placed a beacon. The monks of Sinai have a convent here, to which they sometimes retire; and here is found the best water on the Red Sea, but no other refreshments can be got nearer than Sinai. The coast is remarkable for the variety of madreporæ and other species of coral.

TORBAY, a commodious bay on the coast of Devon, five miles north-east of Dartmouth, near a village called Brixham. It is formed by two capes, that on the east called Bob's-nose, and that on the west Berry-head; it is about twelve miles in circumference. This is the general rendezvous of the royal navy against westerly winds. Near this bay is a remarkable place called Kent's Hold, consisting of many large caverns, entered by subterraneous passages, through one of which runs a rivulet of water. High water at full and change, at a quarter past six o'clock. Berry-head flag-staff, lat. 50° 44' N., long. 28° 14' W.

TORCELLO, a large town of Austrian Italy, in the delegation and Lagoon of Venice, situated on an island of the same name. It has a population of 9000, partly employed in manufactures; but the climate is extremely unhealthy. It is the see of a bishop, the cathedral being the only building of consequence. Seven miles north of Venice.

TORCH, *n. s.*

TORCH-BEARER, }

TORCH'ER, }

TORCH-LIGHT. }

Fr. *torche*; Ital. *torcia*;

low Latin *intortitium*. A

wax light; flambeau: a tor-

cher is one that gives light;

and the other derivatives correspond.

He did in a genteel manner chastise their negligence, with making them, for that night, the *torch-bearers*. *Sidney.*

Basilus knew, by the wasting of the *torches*, that the night also was far wasted. *Id.*

Here lies the dusky *torch* of Mortimer,  
Choaked with ambition of the meaner sort.

*Shakespeare.*

Ere the horses of the sun shall bring  
Their fiery *torch* his diurnal ring. *Id.*

When the Emperor Charles had clasped Germany almost in his fist, he was forced to go from Isburg, and, as if in a mask, by *torchlight*, to quit every foot he had gotten. *Bacon.*

If thou like a child didst fear before,  
Being in the dark, where thou didst nothing see ;  
Now I have brought thee *torchlight*, fear no more.

*Davies.*

They light the nuptial *torch*, and bid invoke  
Hymen. *Milton.*

Never was known a night of such distraction ;  
Noise so confused and dreadful ; *torches* gliding  
Like meteors by each other in the streets. *Dryden.*

When men of infamy to grandeur soar,  
They light a *torch* to shew their shame the more.

*Young.*

TORDESILLAS, a well-built town in the north-west of Spain, in the province of Leon, on the right bank of the Douro, over which there is a very fine bridge. Inhabitants 4000. Here is an hospital and several churches, and a royal residence of old date, the retreat of the mother of the emperor Charles V. Twenty-five miles W. S. W. of Valladolid.

TORDYLIUM, hart-wort, in botany, a genus of plants belonging to the class of pentandria, and order of digynia ; and in the natural system arranged under the forty-fifth order, umbellatæ. The corollets are radiated, and all hermaphrodite ; the fruit is roundish, and crenated on the margin ; the involucre long and undivided. There are seven species, of which two are British ; viz. 1. *T. nodosum*, or knotted parsley, has simple sessile umbels, the external seeds being rough. It grows in the borders of corn-fields, and in dry stony places. 2. *T. officinale*, official hart-wort, has partial involucre as long as the flowers ; leaflets oval and jagged ; the seeds are large and flat, and their edges notched.

TORELLI (Joseph), was born at Verona in 1721. He received the degree of LL. D. Being in possession of a considerable fortune, he was enabled to devote himself entirely to literature. Though he did not practise as a lawyer, he did not relinquish the study of law. He acquired the Hebrew, Greek, Latin, and Italian languages ; also French, Spanish, and English. In fact his acquirements in every branch of learning and sciences were only equalled by his virtues. He died in 1781. He was author of twenty different works on various subjects.

TORFÆUS (Thermodus), a native of Iceland, of considerable learning and abilities, born in 1639. He became historiographer to the king of Denmark. He wrote the History of Norway ; containing also the annals of the northern parts of Scotland, from the year 850 to 1205. He died in 1720, aged eighty-one.

TORGAU, a town of Prussian Saxony, in the government of Merseburg, on the Elbe, forty-six

miles north-west of Dresden, and sixty-five south, by west of Berlin. Its fortifications, formerly limited to the castle of Hastenfelds, embrace, since 1810, the town itself, which is now a place of great strength. The inhabitants (about 4500) are manufacturers of woollens, leather, and soap. Here is an hospital, and a church, of which the most remarkable monument is that of Catherine Bora, the wife of Luther. Corn, hops, and to a small extent, vines, are cultivated in the neighbourhood. Torgau has been the scene of several sanguinary conflicts, the most remarkable of which was a victory obtained here on the 11th of November, 1760, over the Austrians, by Frederick II. of Prussia.

TORIES, a political faction in Britain, opposed to the Whigs. This name was first given to a set of banditti in Ireland, whose summons to surrender was expressed by the Irish word *Toree*, i. e. Give me. It was thence transferred to the adherents of Charles I. by his enemies, under the pretence that he favored the rebels in Ireland. His partisans, to be even with the republicans, gave them the name of Whigs, from a word which signifies whey, in derision of their poor fare. The Tories, or cavaliers, as they were also called, had then principally in view the political interests of the king, the crown, and the church of England ; and the round-heads, or Whigs, proposed chiefly the maintaining of the rights and interests of the people, and of Protestantism. This is the most popular account ; and yet it is certain the names Whig and Tory were but little known till about the middle of the reign of Charles II. M. de Cize relates that it was in the year 1678 that the whole nation was first observed to be divided into Whigs and Tories ; and that on occasion of the famous deposition of Titus Oates, who accused the Catholics of having conspired against the king and the state, the appellation of Whig was given to such as believed the plot real, and Tory to those who held it fictitious.

TORINI, an ancient nation of Scythia.

TORMENT, *v. a.* } Fr. *ourmenter*. To put  
TORMENT, *n. s.* } to pain ; harass ; excruciate.  
TORMENTOR, *n. s.* } ate ; tease : torment is also any thing that gives pain or misery ; penal anguish : a tormentor, the inflicter of such pain

Art thou come to torment us before the time ?

*Matthew, viii.*

They brought unto him all sick people that were taken with divers diseases and *torments*, and he healed them. *Matthew.*

He called to me for succour, desiring me at least to kill him, to deliver him from those *tormentors*.

*Sidney.*

No prisoners there, enforced by *torments*, cry ;  
But fearless by their old *tormentors* lie.

*Sandy's Paraphrase.*

No sleep close up that deadly eye of thine,  
Unless it be while some *tormenting* dream  
Affrights thee with a hell of ugly devils.

*Shakespeare.*

I am glad to be constrained to utter what  
*Torments* me to conceal.

*Id. Cymbeline.*

The more I see  
Pleasures about me, so much more I feel  
*Torment* within me.

*Milton.*



Evils on me light

At once, by my foreknowledge gaining birth  
Abortive, to torment me ere their being. *Id.*

They soaring on main wing  
Tormented all the air. *Id.*

Let thy tormentor, conscience, find him out. *Id.*

Hadst thou full power to kill,  
Or measure out his torments by thy will;  
Yet what couldst thou, tormentor, hope to gain?  
Thy loss continues unrepaid by pain.

*Dryden's Juvenal.*

Not sharp revenge, nor hell itself, can find  
A fiercer torment than a guilty mind,  
Which day and night doth dreadfully accuse,  
Condemns the wretch and still the charge renews.

*Dryden.*

The commandments of God being conformable to  
the dictates of right reason, man's judgment con-  
demns him when he violates any of them; and so  
the sinner becomes his own tormentor.

*South's Sermons.*

The ancient martyrs passed through such new  
inventions and varieties of pain as tired their tor-  
mentors. *Addison.*

TORMENTIL, *n. s.* *Fr. tormentille*; Latin  
*tormentilla*. Septfoil. A plant.

The root of *tormentil* has been used for tanning of  
leather, and accounted the best astringent in the  
whole vegetable kingdom. *Miller.*

Refresh the spirits externally by some epithemata  
of balm, bugloss, with the powder of the roots of  
*tormentil*. *Wiseman.*

TORMENTILLA, *tormentil*, in botany, a  
genus of plants belonging to the class of icosan-  
dria, and order of polygynia; and in the natural  
system ranging under the thirty-fifth order, sin-  
ticosæ. The calyx is octofid; the petals are  
four; the seeds round, naked, and affixed to a  
juiceless receptacle. There are two species, both  
indigenous, viz. 1. *T. erecta*, common tormentil,  
or septfoil, has a stalk somewhat erect, and ses-  
sile leaves. The roots consist of thick tubercles,  
an inch or more in diameter, replete with a red  
juice of an astringent quality. They are used in  
most of the western isles, and in the Orkneys,  
for tanning. A decoction of these roots in milk  
is also frequently administered by the inhabitants  
of the same islands in diarrhoeas and dysenteries  
with good success; but perhaps it would be most  
proper not to give it in dysenteries till the mor-  
bid matter be first evacuated. A spirituous ex-  
tract of the plant stands recommended in the  
sea-scurvy, to strengthen the gums and fasten the  
teeth. Linnaeus informs us that the Laplanders  
paint their leather of a red color with the juice  
of the roots. 2. *T. repens*, creeping tormentil,  
has reddish stalks, slender and creeping. The  
leaves are sharply serrated, grow on short foot-  
stalks, and are five lobed. The flowers are  
numerous and yellow, blossom in July, and are  
frequent in woods and barren pastures.

TORNADO, *n. s.* Spanish *tornado*. A hur-  
ricane; a whirlwind.

Nimble courascations strike the eye,  
And bold tornados bluster in the sky. *Garth.*

Hark! He answers; wild tornados  
Strewing yonder sea with wrecks. *Cowper.*

TORO, the name of three districts of the  
north of Spain, at a considerable distance from  
each other. They are termed respectively the

partidos or divisions of Toro, Carrion, and Rey-  
nosa; the first situated on the Douro, near the  
province of Valladolid; the second to the north,  
on the river Carrion; the third farther to the  
north, in the mountains of Biscay, between  
Burgos and Santillanos. Of the rivers, the largest  
are the Douro, here in the middle of its course;  
and the Carrion flowing into it from the moun-  
tains of Biscay. The Reynosa district is tra-  
versed by the Ebro, which is there a slender  
stream. The exports of these districts are wine,  
wool, and cattle. Their manufactures are strictly  
domestic.

TORO, a city in the north-west of Spain, in the  
province of Leon, the chief place of the preced-  
ing district.

TOROPEZ, a considerable town of European  
Russia, in the government of Pskov, on the river  
Oropa, and lake Solomino. It has a cathedral  
and thirteen parish churches, two monasteries,  
many tanneries, and a good carrying trade. Po-  
pulation between 7000 and 8000. Toropez is  
156 miles south-east of Pskov, and 245 south of  
St. Petersburg.

TORPOR, *n. s.* Latin *torpor*. Dullness;  
TORPENT, *adj.* numbness; inability to  
TORPID, move; dullness of sensa-  
TORPIDNESS, *n. s.* tion: the other two noun  
TORPITUDE. substantives are also of this  
meaning: the two adjectives mean, benumbed;  
motionless.

Motion discusses the *torpor* of solid bodies, which,  
beside their motion of gravity, have in them a natu-  
ral appetite not to move at all.

*Bacon's Natural History.*

Though the object about which it is exercised be  
poor, little, and low; yet a man hath this advantage  
by the exercise of this faculty about it, that it keeps  
it from rest and torpidness, it enlargeth and habituates  
it for a due improvement even about nobler objects.

*Hale's Origin of Mankind.*

Without heat all things would be torpid, and  
without motion. *Ray on the Creation.*

A comprehensive expedient to assist the frail and  
torpent memory through so multifarious an employ-  
ment. *Evelyn.*

Some, in their most perfect state, subsist in a kind  
of torpitude or sleeping state. *Derham.*

The sun awakes the torpid sap.

*Thomson's Spring.*

TORRE DEL GRECO, a considerable town of  
Italy, at the foot of Vesuvius. It contains a po-  
pulation of 16,000, employed for the most part  
in fishing, navigation, and the culture of the  
vine. It was destroyed by an eruption of  
Mount Vesuvius in 1794, and still presents, in its  
scattered houses, half-buried churches, and  
streets almost choked up with lava, a striking  
picture of the ravages of the volcano. The depth  
of the lava is in some places twenty-five feet.  
Nine miles E. S. E. of Naples.

TORRE VELHA, a fort of Portugal, at the  
mouth of the Tagus, on the south side. It serves  
along with the Torre de Belem, on the opposite  
side of the Tagus, to protect the harbour of Lis-  
bon, three miles west by south of Lisbon. All  
along the coast of Spain, from the straits of Gibal-  
tar to the extremity of Catalonia are a number of  
small forts called Torre, intended as a defence  
against the Barbary pirates.

**TOR'REFY**, *v. a.* } *Fr. torrefier*; Latin  
**TORREFACTION**, *n. s.* } *torrefacio*. To dry by  
 the fire: the noun substantive corresponding.

If it have not a sufficient insolation, it looketh  
 pale; if it be sunned too long, it suffereth *torrefac-*  
*tion*. *Broune.*

The Africans are more peculiarly scorched and  
*torrefied* from the sun by addition of dryness from  
 the soil. *Id.*

When *torrefied* sulphur makes bodies black, why  
 does *torrefaction* make sulphur itself black?

*Boyle on Colours.*

Another clister is composed of two heminae of  
 white wine, half a hemina of honey, Egyptian nitre  
*torrefied*, a quadrant. *Arbuthnot.*

**TORREFACTION**, in chemistry and metallurgy,  
 is the roasting or scorching of a body by fire, to  
 discharge a part either unnecessary or hurtful in  
 another operation. Sulphur and most metals  
 are thus discharged from their ores before they  
 are wrought. See **METALLURGY**.

**TOR'RENT**, *n. s. & adj.* *Fr. torrent*; *Lat.*  
*torrens*. A sudden, violent, or rapid stream:  
 rolling in a rapid stream.

The near in blood

Forsake me like the *torrent* of a flood.

*Sandys on Job.*

Not far from Caucasus are certain steep-falling  
*torrents*, which wash down many grains of gold, as  
 in many other parts of the world; and the people  
 there inhabiting, use to set many fleeces of wool in  
 these descents of waters, in which the grains of gold  
 remain, and the water passeth through, which Strabo  
 witnesseth to be true.

*Raleigh.*

The memory of those who, out of duty and con-  
 science, opposed that *torrent* which did overwhelm  
 them, should not lose the recompense due to their  
 virtue.

*Clarendon.*

Fierce Phlegeton,

Whose waves of *torrent* fire inflame with rage.

*Milton.*

When shrivelled herbs on withering stems decay,  
 The wary ploughman, on the mountain's brow,  
 Undams his watery stores, huge *torrents* flow,  
 Tempering the thirsty fever of the field.

*Dryden's Georgicks.*

Will no kind flood, no friendly rain,  
 Disguise the marshal's plain disgrace;  
 No *torrents* swell the low Mohayne?

The world will say he durst not pass.

*Prior.*

Erasmus, that great injured name,  
 Stemmed the wild *torrent* of a barb'rous age.

**TORRES VEDRAS**, an old town of Portu-  
 guese Estremadura. It has four churches, four  
 convents, an hospital, a castle, and 2300 inhabi-  
 tants. The adjacent country is mountainous, pro-  
 duces good fruit and wine, and has become cele-  
 brated in history from the lines erected in its  
 neighbourhood by lord Wellington in 1810.  
 Twenty-five miles N. N. W. of Lisbon.

**TORRICELLI** (Evangeliste), an illustrious  
 Italian mathematician and philosopher, born at  
 Faenza in 1608. He studied under father Bene-  
 dict Castelli, professor of mathematics at Rome.  
 Having read Galileo's dialogues, he composed a  
 treatise on motion on his principles, which  
 brought him acquainted with Galileo, who took  
 him home as an assistant; but Galileo died in  
 three months after. He became professor of  
 mathematics in Florence, and greatly improved  
 the art of making telescopes and microscopes;  
 but he is best known for finding out a method

of ascertaining the weight of the atmosphere by  
 quicksilver; the barometer being called, from  
 him, the Torricellian tube. He published *Opera*  
*Geometrica*, 4to., 1644; and died in 1647.

**TORRICELLIAN**. Of or belonging to, or  
 discovered or invented by, Torricelli.

**TORRICELLIAN EXPERIMENT**, a famous expe-  
 riment made by Torricelli, by which he demon-  
 strated the pressure of the atmosphere in op-  
 position to the doctrines of suction, &c., finding  
 that pressure able to support only a certain  
 length of mercury, or any other fluid in an in-  
 verted glass tube. See **BAROMETER**.

**TORRICELLIAN VACUUM**. See **PNEUMATICS**.

**TORRID**, *adj.* *Fr. torride*; *Lat. torridus*.  
 Parched; dried with heat; applied particularly  
 to the zone of the earth between the tropics.

Galen's commentators mention a twofold dryness;  
 the one concomitated with a heat, which they call a  
*torrid* tabes; the other with a coldness when the  
 parts are consumed through extinction of their native  
 heat.

*Harvey on Consumptions.*

This with *torrid* heat

And vapours as the Libyan air adust,  
 Began to parch that temperate clime.

*Milton's Paradise Lost.*

Columbus first

Found a temperate in a *torrid* zone;  
 The feverish air fanned by a cooling breeze.

*Dryden.*

Those who amidst the *torrid* regions live,  
 May they not gales unknown to us receive?  
 See daily showers rejoice the thirsty earth,  
 And bless the flowery buds succeeding birth? *Prior.*

The **TORRID ZONE**, in geography, is that  
 part of our globe of earth which lies between  
 the two temperate zones, or the tropics of Can-  
 cer and Capricorn; and is so called from the  
 excessive heat of the climate, the inhabitants  
 having the sun vertical to them twice a  
 year; notwithstanding which there are some  
 high mountains in this zone, whose tops are  
 always covered with snow. The *torrid* zone  
 extends quite round the globe, and comprehends  
 a space of 47° of lat. See **GEOGRAPHY**.

**TORRINGTON**, a populous town of Eng-  
 land, in Devonshire, famous for its manufacture  
 of gloves. It is governed by a mayor and body  
 corporate. It has one church and three dissent-  
 ing places of worship, a market on Saturday,  
 and relics of an ancient castle. It formerly sent  
 two members to parliament. It is seated on the  
 river Torridge, over which it has a fine stone  
 bridge of four arches; ten miles south-west o.  
 Barnstaple, and 194 W. S. W. of London. An  
 ingeniously constructed canal has been lately  
 formed through the munificence of baron lord  
 Rolle, of Stevenstone, near Torrington, for the  
 conveyance of merchandise from Bideford.

**TORSEL**, *n. s.* } *Fr. torse*. Any thing  
**TOR'TUOUS**, *adj.* } of a twisted form: twist-  
**TORTUOSITY**, *n. s.* } ed; wreathed: hence mis-  
 chievous; crooked in purpose or plans: the  
 noun substantive following corresponding.

Ne ought he cared whom he endamaged  
 By *tortuous* wrong, or whom bereaved of right.

*Spenser.*

Knots by the conflux of meeting sap  
 Infect the sound pine, and divert his grain  
 Tortise and errant from his course of growth.

*Shakspeare.*



So varied he, and of his *tortuous* train  
Curled many a wanton wreath.

Milton.

These the midwife contriveth unto a knot close  
unto the body of the infant, from whence ensueth  
that *tortuosity*, or complicated nodosity, called the  
navel.

Browne's *Vulgar Errors*.

Aqueous vapours, like a dry wind, pass through  
so long and *tortuous* a pipe of lead.

Boyle.

When you lay any timber on brickwork, as *torsels*  
for mantle trees to lie on, or lintels over windows,  
lay them in loam.

Moxon's *Mechanical Exercises*.

TORT, *n. s.* Fr. *tort*; low Lat. *tortum*.  
TORTION. § Mischief; injury; calamity: *tort*-  
ment; pain. Obsolete.

He dreadful bad them come to court,  
For no wild beasts should do them any *tort*.

Spenser.

All purgers have a raw spirit or wind, which is  
the principal cause of *tortion* in the stomach and  
belly.

Bacon.

Your disobedience and ill managing  
Of actions, lost for want of due support,  
Refer I justly to a further spring,  
Spring of sedition, strife, oppression, *tort*.

Fairfax.

TORTOISE, *n. s.* Fr. *tortue*. An animal  
covered with a hard shell: an ancient position into  
which soldiers threw themselves and their shields.

In his needy shop a *tortoise* hung,  
An alligator stuft.

Shakespeare.

Their targets in a *tortoise* cast, the foes  
Secure advancing to the turrets rose.

Dryden's *Æneid*.

A living *tortoise* being turned upon its back, not  
being able to make use of its paws for the returning  
of itself, because they could only bend towards the  
belly, it could help itself only by its neck and head.

Ray on the *Creation*.

TORTOISE, in zoology. See TESTUDO.

TORTOISESHELL, the shell, or rather scales,  
of the testaceous animal called a *tortoise*; used in  
inlaying, and in various other works, as for  
snuff-boxes, combs, &c. It is the under shell  
alone that is used; to separate it, they make a  
little fire beneath it, and, as soon as ever it is  
warm, the under shell becomes easily separable  
with the point of a knife, and is taken off in  
laminæ or leaves; of which there are thirteen,  
eight of them flat, and five a little bent. Of  
the flat ones there are four large ones, sometimes  
a foot long, and seven inches broad. The best  
*tortoise-shell* is thick, clear, transparent, of the  
color of antimony, sprinkled with brown and  
white. When used in marquetry, &c., the  
workmen give it what color they please by  
means of colored leaves, which they put under-  
neath it.

*Tortoise-shell* and horn become soft in a  
moderate heat, as that of boiling water, so as to  
be pressed in a mould into any form, the shell  
or horn being previously cut into plates of a  
proper size. Two plates are likewise united  
into one by heating and pressing them; the  
edges being thoroughly cleaned, and made to  
fit close to one another. The *tortoise-shell* is  
heated by applying a hot iron above and beneath  
the juncture, with the interposition of a wet  
cloth to prevent the shell from being scorched.  
Both *tortoise-shells* and horns may be stained of  
a variety of colors by means of the coloring  
drugs commonly used in dyeing, and by certain  
metallic solutions.

TORTOSA, a considerable town in the north-  
east of Spain, in the province of Catalonia, on  
the left bank of the Ebro. It is the seat of a  
bishop, has a population of 11,000, and is di-  
vided into the Old and New Towns, both sur-  
rounded with walls. The adjacent country is  
pleasant and fertile, and the trade not inconsid-  
erable. The town is of great antiquity, was called  
Dordosa by the Romans, received municipal pri-  
vileges from Scipio, and was more than once the  
scene of conflicts between the Spaniards and the  
Moors. In 1649 and 1810 this town was taken  
by the French. Ninety-three miles south-east of  
Saragossa, and ninety-two west by south of  
Barcelona.

TORTOSA, a sea-port of Syria, formerly called  
Orthosia, supposed to be built about the fifth or  
sixth century. By the historians of the crusades,  
it is frequently mentioned as a place of great  
strength, and to this the remains of the ancient  
walls bear testimony. Nothing now remains of  
it, except a church, which bears marks of great  
magnificence. It is 130 feet long, ninety-three  
broad, and sixty-one high. Its walls, arches, and  
pillars, are of a species of marble, and still so  
entire that it might at little expense be restored  
to its former beauty. But when Maundrell visited  
the place, it was used as a stall for cattle; and  
he could not see it without wading up to the  
knees in mire. Thirty-five miles north of Tripoli.  
Long. 35° 58' E., lat. 34° 55' N.

TORTOSA, CAPE, a promontory of Spain, on  
the coast of Catalonia. Long. 0° 47' E., lat. 40°  
40' N.

TORTUE, a river of America, which runs into  
the Wabash. Long. 87° 55' W., lat. 39° 30' N.

TORTUE, LA, a small river of Lower Canada,  
which falls into the St. Lawrence from the south,  
about four miles above Montreal. It is not na-  
vigable for boats to a greater distance than half a  
league from its mouth, and that only during the  
freshest of the spring.

TORTUES, a river of the United States, in  
Louisiana, which runs into the Missouri. Long.  
94° 24' W., lat. 38° 26' N.

TORTUGA SALADA, an island of the Car-  
ibbean Sea, about thirty-six miles in circumfer-  
ence. The east end is full of rugged and  
broken rocks; at the south-east is an indifferent  
good road for shipping, much frequented in  
peaceable times; and at the east end is a large  
salt-pond. Near the west extremity of the island,  
on the south side, is a small harbour, and some  
fresh water. The turtles or *tortoises* come into the  
sandy bays here to lay their eggs, and hence the  
island has its name. It is uninhabited, and  
ninety-five miles E. N. E. of the port of La  
Guaira.

TORTUGA, an island of the North Atlantic  
Ocean, about six miles from the north coast of  
the island of Hispaniola. It is about sixty miles  
in circumference, and is surrounded by rocks  
on the north and west sides. It is fertile in to-  
bacco, palms, sandal wood, resin, China root,  
aloes, sugar, indigo, cotton, and all sorts of tropi-  
cal fruits, but scarce of water. Long. 72° 44'  
W., lat. 20° 4' N.

TORTURE, *n. s.* Fr. *torture*; Lat. *tor-*  
TORTURER. § *tura*. Torments judicially

inflicted; pain by which confession is extorted, or guilt is punished: he who inflicts them.

Hipparchus, my enfranchised bondman,  
He may at pleasure whip, or hang, or torture.

*Shakspeare.*

I play the *torturer* by small and small,  
To lengthen out the worst that must be spoken.

*Id.*

When king Edward the second was amongst his *torturers*, the more to disgrace his face, they shaved him, and washed him with cold water; the king said, Well, yet I will have warm water; and so shed abundance of tears.

*Bacon's Apophthegms.*

The bow *tortureth* the string continually, and thereby holdeth it in a continual trepidation.

*Id. Natural History.*

The scourge inexorable and the *torturing* hour  
Call us to penance.

*Hecate*

*Milton.*

Then led me trembling through those dire abodes,  
And taught the *tortures* of the avenging gods.

*Dryden.*

Still must I cherish the dear, sad remembrance,  
At once to *torture* and to please my soul.

*Addison's Cato.*

TORTURE was never permitted among the Romans except in the examination of slaves. To the disgrace of the professors of Christianity, torture was long practised by those who called themselves Catholics, against those whom they termed heretics. See ACT OF FAITH, and INQUISITION. By the law of England, torture was at one period employed to compel those criminals who stood obstinately mute when brought to trial, and refused to plead guilty or not guilty; but it is now abolished.

TORVOUS, *adj.* Latin *torvus*. Sour of aspect; stern; severe of countenance. Not used.

That *torvous* soul look produced by anger, and that gay and pleasing countenance accompanying love.

*Derham.*

TORY, *n. s.* A cant term, derived from an Irish word signifying a savage, or rather a collector of tithes or taxes. One who adheres to the side of power and authority; or, as Dr. Johnson says, to the ancient constitution of the state, and the apostolical hierarchy of the church of England: opposed to a whig.

The knight is more a *tory* in the country than the town, because it more advances his interest.

*Addison.*

This protestant zealot, this English divine,  
In church and in state was of principles sound;

Was truer than steel to the Hanover line,  
And grieved that a *tory* should live above ground.

*Swift.*

Tony (Geoffry), a native of Bourges, who was professor of philosophy at Paris; but afterwards commenced printer, and greatly improved the art. He wrote a book On the Proportion and Distance of Letters; which proved very useful. He also published a translation of Horus Apollo's Hieroglyphics. He died in 1550.

TORYISM, the principles of the *tories*.

TOSCANELLA (Paul), a most celebrated Italian astronomer of the fifteenth century, who erected in the cathedral of Florence the famous gnomon, which is still reckoned the best in Europe, and of which F. Ximenes gave a particular description. He died in 1490.

TOSS, *v. a., v. n., & n. s.* Fr. *tasser*; Belgic *tusser*; Swed. *dussa*; Gr. *ᾠδωαι*, to dance. Meric Casaubon. Germ. *tosen*, to make a noise. Skinner. *Pret.* tossed or tost; *part. pass.* tossed or tost. To throw with the hand, as a ball at play, to agitate or lift suddenly and violently: to fling; to be in violent commotion: the act of tossing.

The getting of treasures by a lying tongue is a vanity tossed to and fro.

*Proverbs xxi. 6.*

She did love the knight of the red cross,  
For whose dear sake so many troubles her did toss.

*Spenser.*

That scholar should come to a better knowledge in the Latin tongue, than most do that spend four years in *tossing* all the rules of grammar in common schools.

*Aschan.*

Your mind is *tossing* on the sea,  
There where your argosies

Do overpeer the petty traffickers.

*Shakspeare.*

Back do I *toss* these treasons to thy head.

*Id.*

Things will have their first or second agitation: if they be not *tossed* upon the arguments of counsel, they will be *tossed* upon the waves of fortune, and be full of inconstancy, doing and undoing.

*Bacon's Essays.*

Galen tells us of a woman patient of his whom he found very weak in bed, continually *tossing* and tumbling from one side to another, and totally deprived of her rest.

*Harvey.*

Dire was the *tossing*! deep the groans! I despair  
Tended the sick, busiest from couch to couch.

*Milton.*

Calm region once,

And full of peace, now *tost* and turbulent.

*Id.*

To *toss* and fling, and to be restless, only frets and enrages our pain.

*Tillotson.*

Behold how they *toss* their torches on high,  
How they point to the Persian abodes.

*Dryden.*

His various modes from various fathers follow;

One taught the *toss*, and one the new French wallow:  
His sword-knot this, his cravat that designed.

*Id.*

Tie at each lower corner a handful of hops with a piece of packthread to make a *tassel*, by which you may conveniently lift the bag when full.

*Mortimer's Husbandry.*

The discus that is to be seen in the hand of the celebrated Castor at Don Livio's is perfectly round; nor has it any thing like a sling fastened to it, to add force to the *toss*.

*Addison.*

TOSTATUS (Alphonsus), a learned Spanish prelate, born in 1414. He was educated at Salamanca, and became bishop of Avila. He wrote Commentaries on Eusebius, 5 vols. fol., and on the Scriptures. He died in 1454, aged forty.

TOTAL, *adj.* } Latin *totus*; French *total*.  
TOTALLY, *adv.* } Whole; complete; full; undivided: the adverb corresponding.

The sound interpreters expound this image of God of natural reason; which, if it be *totally* or mostly defaced, the right of government doth cease.

*Bacon's Holy War.*

The obdurate sinner, that hath long hardened his own heart against God, thereby provokes him *totally* to withdraw all inward grace from him.

*Hammond.*

Either to undergo

Myself the *total* crime; or to accuse

My other self, the partner of my life.

*Milton's Paradise Lost.*

If all the pains that, for thy Britain's sake,  
My past has took, or future life may take,



Be grateful to my queen; permit my prayer,  
And with this gift reward my total care. *Prior.*

Charity doth not end with this world, but goes along with us into the next, where it will be perfected; but faith and hope shall then *totally* fail; the one being changed into sight, the other into enjoyment.

*Atterbury's Sermons.*

**TOTANA**, a town of Mercia, Spain, situated on the great road leading from Andalusia into Valencia. It is an inland place, and contains 8200 inhabitants, who are proverbially unenterprising and indolent. Fifteen miles E. N. E. of Lorca.

**TOTNES**, a borough and market-town in Cole-ridge hundred, Devonshire, on the river Dart, over which there is a bridge, about twelve miles from the sea and 195 miles from London. The town is about three-quarters of a mile in length, and commands a fine view of the surrounding country. The church is a spacious building, having a lofty tower above ninety-feet high. It has a manufacture of woollen cloth, which is rapidly increasing; but the chief employment of the inhabitants is in the fishery. The town was formerly defended by a strong castle, and surrounded by walls, the ruins of which are still observable. The parish contains a town-hall, and a school-house, and is a borough by prescription, the corporation consisting of fourteen burgo-masters, whereof one is mayor, who, with his predecessor and the recorder, are justices of the peace; besides twenty common councilmen, &c. It returns two members to parliament, who are chosen by the freemen of the borough, with a respect to residence therein, the number of voters being about 320. The river Dart, which produces excellent trout, is here very broad, and the tide flows twelve feet at the bridge. A part of the Roman fosse-way, which passed here, is still visible. Market on Saturday, and a monthly market for cattle. Fairs Easter-Tuesday, May 1, July 25, and October 28.

**TOTTER**, *v. n.* Sax. *teatpian*; Belg. *tate-ren*, to stagger. To shake so as to threaten a fall.

As a bowing wall shall ye be, and as a tottering fence.

*Psalms.*

Siker thy head very tottie is,  
So on thy corbe shoulder it leans aside.

*Spenser's Pastorals.*

What news, in this our tottering state?

—It is a reeling world indeed, my lord,  
And I believe will never stand upright. *Shakspeare.*

The foes already have possessed the wall,  
Troy nods from high, and totters to her fall.

*Dryden.*

**TOUCAN**, in ornithology. See **RHAMPHASTOS**.

**TOUCAN**, or American goose, is one of the constellations of the southern hemisphere, consisting of nine small stars.

|   |   |
|---|---|
| <b>TOUCH</b> , <i>v. a., v. n., &amp; n. s.</i> | } Fr. <i>toucher</i> ;<br>Ital. <i>toccare</i> ;<br>Span. <i>tocer</i> ;<br>Lat. <i>tingo</i> . To perceive by feeling; handle or strike slightly; reach; attain; try; affect; interfere with; impel; move; |
| <b>TOUCH'OLE</b> , <i>n. s.</i>                 |   |
| <b>TOUCH'INESS</b> ,                            |   |
| <b>TOUCH'ING</b> , <i>prep.</i>                 |   |
| <b>TOUCH'INGLY</b> , <i>adv.</i>                |   |
| <b>TOUCH'STONE</b> , <i>n. s.</i>               |   |
| <b>TOUCH'WOOD</b> ,                             |   |
| <b>TOUCH'y</b> , <i>adj.</i>                    |   |

melt; influence, taking up in the active form: as a verb neuter, to be in a state of contact; take effect on; fasten on, taking at, on, upon: touch, noun substantive, is the act or sense of touching; test; examination; proof; slight stroke; lineament; feature; passion; relation; power of excitation; hurt; censure: a touchhole is the hole through which the powder in a gun is lighted, as it were, by a touch: touchiness, testiness; peevishness of temper: touching, with respect or regard to: touchingly, affectingly; in a moving manner: touchstone, a stone by which metals are tried; any test: touchwood, rotten or dry wood, used to catch fire from a flint: touchy is, testy; peevish; easily provoked.

He brake the withs as a thread of tow is broken when it toucheth the fire. *Judges xvi. 9.*

Touch kept is commended, yet credit to keepe  
Is pay and dispatch him, yer ever ye sleepe. *Tusser.*

The touch of the cold water made a pretty kind of shrugging come over her body, like the twinkling of the fairest among the fixed stars. *Sidney.*

He so light was at legerdmain,  
That what he touched came not to light again.

*Spenser.*

Touching things which belong to discipline, the church hath authority to make canons and decrees, even as we read in the apostles' times it did.

*Hooker.*

He which without our nature could not on earth suffer for the world, doth now also, by means thereof, both make intercession to God for sinners, and exercise dominion over all men, with a true natural, and a sensible touch of mercy. *Id.*

Is not this their rule of such sufficiency, that we should use it as a touchstone to try the orders of the church? *Id.*

Madam, I have a touch of your condition,  
That cannot brook the accent of reproof. *Shakspeare.*

He loves us not  
He wants the natural touch. *Id.*

With one virtuous touch  
Th' arch-chemick sun produces precious things. *Milton.*

Nor wanted power to mitigate and swage,  
With solemn touches, troubled thoughts. *Id.*

They touched their golden harps, and praised. *Id.*  
No decree of mine,

To touch with highest moment of impulse  
His free will. *Id.*

Quoth Hudibras, thou offerest much,  
But art not able to keep touch. *Hudibras.*

Words so debased and hard, no stone  
Was hard enough to touch them on. *Id.*

To make white powder, the powder of rotten willows is best; spunk, or touchwood prepared, might make it russet. *Brown.*

I keep touch both with my promise to Philopolis, and with my own usual frugality in these kind of collations. *More.*

This coming still nearer to an aspiration, a touch of it may perhaps be an ingredient in the rough guttural pronunciation of the Welsh and Irish.

*Holder's Elements of Speech.*

Never give the least touch with your pencil, till you have well examined your design. *Dryden.*

A son was copied from his voice so much,  
The very same in every little touch. *Id.*

Time is the surest judge of truth: I am not vain enough to think I have left no faults in this, which that touchstone will not discover. *Id. Spanish Fryar.*

He was not to expect that so perfidious a creature should keep touch with him. *L'Estrange.*

Money serves for the *touchstone* of common honesty.

The fifth sense is *touch*, a sense over the whole body.

Locke.

Its face must be very flat and smooth, and so hard that a file will not *touch* it, as smiths say, when a file will not eat, or *race* it. *Moxon's Mechan. Exerc.*

Socrates chose rather to die, than renounce or conceal his judgment *touching* the unity of the Godhead.

South.

This last fable shows how *touchingly* the poet argues in love affairs.

Garth.

Our kings no sooner fall out, but their mints make war upon one another; one meets sometimes with very nice *touches* of railery.

Addison on Medals.

It is impossible to make observations in art or science, which have not been *touch*ed upon by others.

Id. Spectator.

The tender fire was *touch*ed with what he said, And flung the blaze of glories from his head,

And bid the youth advance.

Id. Ovid.

Though its error may be such,

As Knags and Burgess cannot hit,

It yet may feel the nicer *touch*

Of Wicherley's or Congreve's wit.

Prior.

You are upon a *touchy* point, and therefore treat so nice a subject with proportionable caution.

Collier on Pride.

If he intends to deal clearly, why does he make the *touchstone* faulty, and the standard uncertain?

Collier.

I was sensibly *touch*ed with that kind impression.

Congreve.

You are so *touchy*, and take things so hotly, I am sure there must be some mistake in this.

Arbutnot's History of John Bull.

One dip the pencil, and one *touch* the lyre.

The spider's *touch* how exquisitely fine!

Feels at each thread, and lives along the line.

Id.

He gave the little wealth he had

To build a house for fools and mad;

To shew, by one satirick *touch*,

No nation wanted it so much.

Swift.

Print my preface in such a form as, in the book-sellers phrase, will make a sixpenny *touch*.

Id.

Nature affords at least a glimmering light:

The lines, though *touch*ed but faintly, are drawn right.

Pope.

The *Touch* is improperly used for the sense of feeling. See ANATOMY.

*TOUCH.* Tactus. In Magendie's Physiology are the following illustrations of this subject:—

'By *touch* we are enabled to know the properties of bodies; and as it is less subject to deception than the other senses, enabling us in certain cases to clear up errors into which the others have led us, it has been considered the first, and the most excellent of all the senses; but several of the advantages which have been attributed to it by physiologists and metaphysicians should be considerably limited. We ought to distinguish tact from *touch*. Tact is, with some few exceptions, generally diffused through all our organs, and particularly over the cutaneous and mucous surfaces. It exists in all animals; whilst *touch* is exerted evidently only by parts that are intended particularly for this use. It does not exist in all animals, and it is nothing else but tact united to muscular contractions directed by the will. In the exercise of tact we may be considered as passive, whilst we are essentially active in the exercise of *touch*.

*Physical properties of bodies which employ the action of touch.*—Almost all the physical properties of bodies are susceptible of acting upon the organs of *touch*; form, dimensions, different degrees of consistence, weight, temperature, locomotion, vibration, &c., are all so many circumstances that are exactly appreciated by the *touch*. The organs destined to *touch* do not alone exercise this function; so that in this respect the *touch* differs much from the other senses. As in most cases it is the skin which receives the tactile impressions produced by the bodies which surround us, it is necessary to say something of its structure. The skin forms the envelope of the body; it is lost in the mucous membranes at the entrance of all the cavities; but it is improper to say that these membranes are a continuation of it. The skin is formed principally by the cutis vera, a fibrous layer of various thickness, according to the part which it covers; it adheres by a cellular tissue, more or less firm, at other times by fibrous attachments. The cutis is almost always separated from the subjacent parts by a layer of a greater or less thickness, which is of use in the exercise of *touch*.

The external side of the cutis vera is covered by the epidermis, a solid matter secreted by the skin. We ought not to consider the epidermis as a membrane; it is a homogeneous layer, adherent by its internal face to the chorion, and full of a great number of holes, of which the one sort are for the passage of the hair, and the other for that of cutaneous perspiration; they serve at the same time for the absorption which takes place by the skin. These last are called the pores of the skin. It is necessary to notice, with regard to the epidermis, that it is void of feeling; that it possesses none of the properties of life; that it is not subject to putrefaction; that it wears and is renewed continually; that its thickness augments or lessens as it may be necessary: it is even said to be proof to the action of the digestive organs.

The connexion of the epidermis to the cutis vera is very close; and yet it cannot be doubted that there is a particular layer between these two parts, in which certain particular phenomena take place. The organisation of this layer is yet little known. Malpighi believed it to be formed of a particular mucus, the existence of which has been long admitted, and which bore the name of the corpus mucosum of Malpighi. Other authors have considered it, more justly, as a vascular network. Gall makes it similar to the gray matter which is seen in many parts of the brain. Cantier, in examining attentively the external surface of the true skin, has noticed some small reddish projections, disposed in pairs; they are easily perceived when the skin is laid bare by a blister. These little bodies are regularly disposed upon the palm of the hand, and on the sole of the foot. They are sensible, and are reproduced when they have been torn out. They appear to be essentially vascular. These bodies, without being understood, have been long called the papillæ of the skin. The epidermis is pierced by little holes opposite their tops, through which small drops of sweat are seen to issue, when the skin is exposed to an elevated temperature. The skin contains a great number of sebaceous



follicles; it receives a great number of vessels and nerves, particularly at the points where the sense of touch is more immediately exercised. The mode in which the nerves are terminated in the skin is totally unknown; all that has been said of the cutaneous nervous papillæ is entirely hypothetical. The exercise of tact and of touch is facilitated by the thinness of the cutis vera, by a gentle elevation of temperature, by an abundant cutaneous perspiration, as well as by a certain thickness and flexibility of the epidermis; when the contrary dispositions exist, the tact and the touch are always more or less imperfect.

*Mechanism of tact.*—The mechanism of tact is extremely simple; it is sufficient that bodies be in contact with the skin to furnish us with data, more or less exact, of their tactile properties. By tact we judge particularly of the temperature. When bodies deprive us of caloric, we call them cold; when they yield it to us, we say they are hot; and, according to the quantity of caloric which they give or take, we determine their different degrees of heat or cold. The notions that we have of temperature are, nevertheless, far from being exactly in relation to the quantity of caloric that bodies yield to us, or take from us; we join with it unawares a comparison with the temperature of the atmosphere, in such a manner that a body colder than ours, but hotter than the atmosphere, appears hot, though it really deprive us of caloric when we touch it. On this account, places which have a uniform temperature, such as cellars or wells, appear cold in summer, and hot in winter. The capacity also of bodies for caloric has a great influence upon us with regard to temperature; as an example of this we have only to notice the great difference of sensation produced by iron and wood, though the temperature of both be the same.

A body which is sufficiently hot to cause a chemical decomposition of our organs produces the sensation of burning. A body whose temperature is so low as to absorb quickly a great portion of the caloric of any part, produces a sensation of the same sort nearly: this may be proved in touching frozen mercury. The bodies which have a chemical action upon the epidermis, those that dissolve it, as the caustic alkalies, and concentrated acids, produce an impression which is easy to be recognised, and by which these bodies may be known. Every part of the skin is not endowed with the same sensibility; so that the same body, applied to different points of the skin in succession, will produce a series of different impressions. The mucous membranes possess great delicacy of tact. Every one knows the great sensibility of the lips, the tongue, of the conjunctiva, the pituitary membrane, of the mucous membrane, of the trachea, of the urethra, of the vagina, &c. The first contact of bodies, which are not destined naturally to touch these membranes, is painful at first, but this soon wears off.

*Mechanism of touch.*—In man the hand is the principal organ of touch; all the most suitable circumstances are united in it. The epidermis is thin, smooth, flexible; the cutaneous perspiration abundant, as well as the oily secretion. The vascular eminences are more numerous there than any where else. The cutis vera has but little thickness; it receives a great number

of vessels and nerves; it adheres to the subjacent aponeuroses by fibrous adhesions; and it is sustained by a highly elastic cellular tissue. The extremities of the fingers possess all these properties in the highest degree, the motions of the hand are very numerous, and performed with facility, and it may be applied with ease to any body of whatsoever form. As long as the hand remains immovable at the surface of a body, it acts only as an organ of tact. To exercise touch, it must move, either by passing over the surface, to examine form, dimensions, &c., or to press it for the purpose of determining its consistence, elasticity, &c.

We use the whole hand to touch a body of considerable dimensions; if, on the contrary, a body is very small, we employ only the points of the fingers. This delicacy of touch in the fingers has given man a great advantage over the animals. His touch is so delicate that it has been considered the source of his intelligence. From the highest antiquity the touch has been considered of more importance than any of the other senses; it has been supposed the cause of human reason. This idea has continued to our times; it has been even remarkably extended in the writings of Condillac, of Buffon, and other modern physiologists. Buffon, in particular, gave such an importance to the touch, that he thought one man had little more ability than another, but only in so far as he had been in the habit of making use of his hands. He said it would be well to allow children the free use of their hands from the moment of their birth. The touch does not really possess any prerogative over the other senses; and if, in certain cases, it assists the eye or the ear, it receives aid from them in others, and there is no reason to believe that it excites ideas in the brain of a higher order than those which are produced by the action of the other senses.

*Of internal sensations.*—All the organs, as well as the skin, possess the faculty of transmitting impressions to the brain, when they are touched by exterior bodies, or when they are compressed, bruised, &c. It may be said that they generally possess tact. There must be an exception made of the bones, the tendons, the aponeuroses, the ligaments, &c., which in a healthy state are insensible, and may be cut, burned, torn, without any thing being felt by the brain. This important fact was not known to the ancients; they considered all the white parts as nervous, and attributed to them all those properties which we now know belong only to the nerves. These useful results, which have had a great influence upon the recent progress of surgery, we owe to Haller and his disciples.

All the organs are capable of transmitting spontaneously a great number of impressions to the brain without the intervention of any external cause. They are of three sorts. The first kind take place when it is necessary for the organs to act; they are called wants, instinctive desires. Such are hunger, thirst, the necessity of making water, of respiration; the venereal impulse, &c. The second sort take place during the action of the organs; they are frequently obscure, sometimes very violent. The impressions which accompany the different excretions, as of the

semen, the urine, are of this number. Such are also the impressions which inform us of our motions, of the periods of digestion: even thought seems to belong to this kind of impression. The third kind of internal sensations are developed when the organs have acted. To this kind belongs the feeling of fatigue, which is variable in the different sorts of functions. The impressions which are felt in sickness ought to be added to these three sorts; these are much more numerous than the others. The study of them is absolutely necessary to the physician. All those sensations which proceed from within, and which have no dependence upon the action of exterior bodies, have been collectively denominated internal sensations, or feelings.

**TOUCH-ME-NOT**, in botany. See **IMPATIENS** and **MONARDICA**.

**TOUCH-NEEDLE**, among assayers, refiners, &c., was little bars of gold, silver, and copper, combined together in all the different proportions and degrees of mixture; the use of which was to discover the degree of purity of any piece of gold or silver, by comparing the mark it leaves on the touch-stone with those of the bars. The metals usually tried by the touch-stone are gold, silver, and copper, either pure, or mixed with one another in different degrees and proportions, by fusion. But it is now quite unnecessary to describe either the touch-needle or the method of using it; as no dealer in gold and silver will now trust to such an uncertain test, when he can ascertain the value with much more ease, expedition, and accuracy, by taking an assay of the mass. See **ASSAYING**.

The **TOUCH-STONE** is a black, smooth, glossy stone, formerly much used to examine the purity of metals. The ancients called it *lapis Lydius*, the Lydian stone, from the name of the country whence it was originally brought. See **LYDIUS**. Any piece of pebble or black flint will answer the purpose of the best *lapis Lydius* of Asia. Even a piece of glass made rough with emery is used with success to distinguish true gold from such as is counterfeit; both by the metallic color and the test of aquafortis. The true touch-stone is of a black color, and is met with in several parts of Sweden. See **MINERALOGY**.

**TOUGH**, *adj.*

**TOUGH'EN**, *v. a. & v. n.* } Sax. *toh*; Belg. *taui*.

**TOUGH'NESS**, *n. s.* } extension without frac-

ture; not brittle; stiff: to make or grow tough: state of being tough.

O sides, you are too tough!

Will you yet hold?

*Shakspeare.*

I confess me knit to thy deserving with cables of perdurable toughness.

*Id. Othello.*

Of bodies some are fragile, and some are tough, and not fragile.

*Bacon's Natural History.*

To make an induration with toughness, and less fragility, decoct bodies in water for three days; but they must be such into which the water will not enter.

*Id.*

A well-tempered sword is bent at will, But keeps the native toughness of the steel.

*Dryden.*

The bow he drew, And almost joined the horns of the tough eugh. *Id.* Hops off the kiln lay three weeks to cool, give, and toughen, else they will break to powder.

*Mortimer's Husbandry.*

In the first stage the viscosity or toughness of the fluids should be taken off by diluents.

*Arbuthnot on Diet.*

**TOUL**, a town in the department of the Meurthe, France, situated on the Moselle, and surrounded by a chain of hills, covered with vineyards. Its old walls were destroyed in 1700, and the place considerably enlarged and improved by the construction of a new rampart. The principal square is the *Place du Dauphin*. The cathedral is a fine edifice of the seventeenth century, and the building, once the bishop's palace, the hospital, arsenal, and barracks, have each some interest. A handsome stone bridge over the Moselle was built by Louis XIV. Here are, on a small scale, manufactures of pottery and stockings. Population about 7000. Fourteen miles west of Nancy, and forty S. S. W. of Metz.

**TOULON**, a noble sea-port of the south-east of France, is situated in the department of the Var, on a bay of the Mediterranean. The outer or greater road of the harbour is bounded by the peninsula on the south; its entrance is a mile and a half broad and is defended by many forts on both shores. The inner road is a fine basin, entered between two promontories a quarter of a mile from each other, and both covered with batteries: the depth in the basin is six to four fathoms. The town, divided into the Old and New, is built at the foot of a ridge of lofty, and in general arid mountains. Its environs yield vines, figs, and other products of a warm latitude. Its form, including the ports, is oval, the longest side lying parallel to the sea.

The old town is ill built, but contains one long straight street called the *Rue aux Arbres*, shaded with trees. The New Town is better built, containing the public structures of Louis XIV.; several straight streets, and a square, called the *champ de Caille*, used for exercising the garrison. Toulon has no river; but several streams, descending from the neighbouring mountains, supply the fountains of the town. The principal public buildings are the hotel de ville, the hotel de l'intendance, and the churches and hospitals.

The arsenal, situated along the side of the new port, is a large edifice, well filled with arms and naval stores. Here are docks for ship-building, store-houses for timber; manufactures of canvas, cordage, ship-anchors, &c. The dry dock, for the repair of ships of war, is also an interesting object. The galley slaves, formerly employed in the harbour of Marseilles, have been for some time removed, and kept at work at Toulon. The trade of this place is limited to the products of the vicinity, such as wine, oil, silk, and fruit of different kinds; and the manufactures to soap, glass, hats, and caps. The tunny fishery is extensive. The population is about 22,000, exclusive of the workmen of the arsenal, and the slaves. The port has long been the scene of the equipment of naval expeditions; but the most remarkable event in its history is the occupation of the town and harbour by the British, in the autumn of 1793; the subsequent siege by the republican troops; and the precipitate abandonment of the place by the British (on 19th Dec. 1793), after burning and carrying off about half



the squadron contained in the port. Buonaparte commanded on this occasion part of the besieging artillery, and directed it with great judgment. The republicans, on obtaining possession of the place, exercised great cruelties towards those of the inhabitants who had, or were suspected to have, participated in delivering it to the English. Thirty miles south-east of Marseilles, 220 south by east of Lyons, and 480 S. S. E. of Paris.

TOULOUSE, a large town in the south of France, the former capital of Upper Languedoc, now of the department of the Upper Garonne, situated on the right bank of the Garonne. The Garonne here is navigable, and as wide as the Seine at Paris. The situation of Toulouse (near the junction of the great canal of Languedoc) is altogether very advantageous for trade; but this part of France is backward, and inferior both in population and activity to the northern departments. The buildings are almost all of brick; even the town walls are of that material; but there is much vacant ground there enclosed, and the population of Toulouse, about 50,000, ranks it only in the third class of cities. Of the streets, a few are tolerably broad. The squares are very small, so that the chief embellishments of the place consist in the public promenades, river, quays, and bridge over the Garonne, a fine structure, 810 feet in length, and seventy-two in breadth. It was built in the middle of the seventeenth century.

Toulouse was a Roman station, and afterwards, in the sixth century, the capital of the Goths. It has a cathedral, handsome, though irregular; and a number of churches, among which that of the Cordeliers is noted for its cavern, that of St. Sarnuin for its relics. The hotel de ville retains the ancient name of Capitol, from which the magistrates are called capitouls, and is large; its façade forms the side of the square called Place Royale. In one of its halls are the busts of all the eminent natives of Toulouse since the time of the Romans. The other buildings worth notice are, the residence of the archbishop, the hospital, mint, and exchange. In antiquities, Toulouse presents only the remains of an amphitheatre, and of an aqueduct. It has a university, a central school, a society of arts and sciences, an academy of inscriptions and belles lettres, museum, a public library, botanical garden, and observatory.

The manufactures consist of silks, woollens, leather, linen, pottery, copper-works, and a cannon foundry; the whole, however, on a small scale. The town contains an insurance company for indemnifying the agriculturist for loss from hail storms. Toulouse is, and has been long, the see of an archbishop, the residence of a number of noblesse or provincial gentry, and the seat of a prefecture. In an historical sense it acquired an unfortunate title to notice, by an obstinate battle fought on the 10th of April, 1814, between the British underlord Wellington, and the French under Soult, neither commander having been apprised of the abdication of Buonaparte. The British troops were successful, but suffered much, their loss in killed and wounded being from 4000 to 5000 men. The climate of Toulouse is warm: the environs produce maize, wheat, vines, and

other fruits of a southern latitude. 150 miles south-east of Bourdeaux, and 420 south by west of Paris.

TOUP (Jonathan), a learned divine and distinguished critic, was born at St. Ives, in Cornwall, in 1713, being the son of the curate. He was entered of Exeter College, Oxford, where he graduated B. A.; but took his degree of M. A. at Pembroke-hall, Cambridge, in 1756, having previously been presented to the rectory of St. Martin's, Cornwall. In 1760 he was made known to the learned world by a first part of his *Emendationes in Suidam*; the second of which appeared in 1764, and the third in 1766. This work, which displays great erudition, rather dogmatically recommended him to a kindred spirit, bishop Warburton, who became his correspondent and patron. In 1767 he published *Epistola Critica*, addressed to that prelate: in 1772 appeared his *Cursus posteriores sive Appendicula Notarum atque Emendationum in Theocritum, Oxonii nuperime publicatum*, 4to. The interest of Warburton now procured him a presentation to a prebend in the church of Exeter, and in 1776 another to the vicarage of St. Merryn. In 1715 he printed *Appendicula Notarum in Suidam*; and in 1778 his edition of *Longinus*. He continued to reside at his living of St. Martin's until his death, in January 1785, in his seventy-third year. He was kind and beneficent, we are told, in private life; in the opinion of Dr. Burney he is to be regarded as one of the seven pre-eminent scholars of the eighteenth century.

TOUPET, *n. s.* Fr. *toupet*. A curl; an artificial lock of hair.

Remember second-hand *toupets* and repaired ruffles. *Swift.*

TOUR, *n. s.* Fr. *tour*. Ramble; roving journey; turn; revolution: Milton seems to use it in another French sense for tower.

The bird of Jove stooped from his airy *tour*,  
Two birds of gayest plumage before him drove.

*Milton.*

I made the *tour* of all the king's palaces.

*Addison*

First Ptolemy his scheme celestial wrought,  
And of machines a wild provision brought;  
Orbs centrick and eccentric he prepares,  
Cycles and epicycles, solid spheres  
In order placed, and with bright globes inlaid,  
To solve the *tours* by heavenly bodies made.

*Blackmore.*

Were it permitted, he 'd make the *tour* of the whole system of the sun.

*Arbutnot and Pope's Martinus Scriblerus.*

TOUR (Henry de la viscount Turenne), a celebrated French general, was the second son of Henry de la Tour, duke of Bouillon, and was born at Sedan in 1611. He made his first campaigns in Holland, under Maurice and Frederic Henry princes of Orange, who were his uncles by the mother's side. In 1634 he marched with his regiment into Lorraine; and, having contributed to the taking of La Mothe, was, though very young, made *mareschal de camp*. In 1636 he took Saverne, and in 1637 the castles of Hirsion and Sole. He continued to distinguish himself in several sieges and battles, and in

1644 was made marshal of France; but was defeated at the battle of Mariendal in 1645. However, he gained the battle of Nortsingen three months after; restored the elector of Treves to his dominions, and in 1646 made the famous junction of the French army with that of Sweden commanded by general Wrangle, which obliged the duke of Bavaria to demand a peace. But that duke breaking the treaty, he was defeated by Turenne at the battle of Zumarshausen, and in 1648 driven entirely out of his dominions. During the civil wars in France he sided with the princes, and was defeated at the battle of Rhetal in 1650; but soon after was restored to the favor of the king, who in 1652 gave him the command of his army. He acquired great honor at the battles of Jergeau, Gren, and the suburbs of St. Anthony, and by the retreat he made before the army commanded by the princes at Ville Neuve St. George. In 1654 he made the Spaniards raise the siege of Arras; in 1655 he took Condé, St. Guilian, and several other places; gained the famous battle of Dunes; and made himself master of Dunkirk, Oudenarde, and almost all Flanders: this obliged the Spaniards to conclude the peace of the Pyrenees in 1660. These important services occasioned his being made marshal general of the king's armies. The war being renewed with Spain in 1667, Turenne commanded in Flanders; and took so many places that in 1668 the Spaniards were obliged to sue for peace. He commanded the French army in the war against the Dutch in 1672; took forty towns in twenty-two days; pursued the elector of Brandenburg even to Berlin; gained the battles of Slintsheim, Ladenburg, Ensheim, Mulhausen, and Turkeim; and obliged the imperial army of 70,000 men to repossess the Rhine. By this campaign he acquired immortal honor. He passed the Rhine to give battle to general Montecuculi, whom he followed as far as Sasbach; but, mounting upon an eminence to discover the enemy's camp, he was killed by a cannon ball in 1675.

**TOURMALINE**, in mineralogy, a name that has been given to a species of stone, found in Ceylon, Brasil, the Tyrol, &c., of a dark brown or yellowish, and sometimes of a green, blue, and even red color: that of the Tyrol by reflected light is of a blackish brown, but by refracted light yellowish, or in thin pieces green; mostly crystallised in polygon prisms, but sometimes amorphous. The thickest parts are opaque; the thin more or less transparent. It possesses peculiar electrical qualities.

Rhombohedral tourmaline is divided into two sub-species, schorl and tourmaline.

**Tourmaline**.—Colors green and brown. In prismatic concretions, rolled pieces, but generally crystallised. Primitive form, a rhomboid of  $133^{\circ} 26'$ . It occurs in an equiangular three-sided prism, flatly acuminate on the extremities with three planes. The lateral edges are frequently bevelled, and thus a nine-sided prism is formed: when the edges of the bevelment are truncated, a twelve-sided prism is formed; and, when the bevelled planes increase so much that the original faces of the prism disappear, an equiangular six-sided prism is formed. Sometimes the prism

is nearly wanting, when a double three-sided pyramid is formed. The lateral planes are generally cylindrical convex, and deeply longitudinally streaked. Crystals imbedded. Splendent, vitreous. Cleavage threefold. Fracture conchoidal. Opaque to transparent. Refracts double. When viewed perpendicular to the axis of the crystal it is more or less transparent; but in the direction of the axis, even when the length of the prism is less than the thickness, it is opaque. As hard as quartz. Easily frangible. Sp. gr. 3.0 to 3.2. By friction it yields vitreous electricity; by heating, vitreous at one end, and resinous at the other. The brown and hyacinth-red varieties have these properties in the greatest degree. The ancients called it *lyncurium*. Before the blowpipe, it melts into a grayish-white vesicular enamel. Its constituents are, silica 42, alumina 40, soda 10, oxide of manganese with a little iron 7, loss 1.—Vauquelin. It occurs in gneiss, mica-slate, talc-slate, &c. The red occurs in Siberia, Ava, and Ceylon.—Jameson.

**TOURNAMENT**, *n. s.*  $\gamma$  Low Lat. *tournamentum*. Tilt; just; military sport.

An elfin born of noble state,  
Well could he *tourney*, and in lists debate. *Spenser*.

For justs, *tournneys*, and barriers, the glories of them are the chariots wherein challengers make their entry. *Bacon*.

They might, under the pretence  
Of tilts and *tournaments*,  
Provide them horse and armour for defence.

*Daniel*.

With cruel *tournament* the squadrons join:  
Where cattle pastured late, now scattered lies  
With carcases, and arms, the' insanguined field.

*Milton*.

Whence came all those justs, tiltings, and *tournaments*, so much in use in these parts?

*Temple's Miscellanies*.

He lived with all the pomp he could devise,  
At tilts and *tournaments* obtained the prize,  
But found no favour in his lady's eyes. *Dryden*.

The **TOURNAMENT**, a martial sport or exercise of ancient cavaliers, is derived from the French word *tourner*, i. e. to turn round, because to be expert in these exercises, much agility both of horse and man was requisite; and they often rode round a ring in imitation of the ancient Circi. The first tournaments were only courses on horseback, wherein the cavaliers tilted at each other with canes in the manner of lances; and were distinguished from justs, which were courses or careers, accompanied with attacks and combats, with blunted lances and swords. See **JUST**. The prince who published the tournament, used to send a king at arms, with a safe conduct, and a sword, to all the princes, knights, &c., signifying that he intended a tournament and a clashing of swords, in the presence of ladies and damsels; which was the usual formula of invitation. They first engaged man against man, then troop against troop; and, after the combat, the judges allotted the prize to the best cavalier and manager of his sword; who was accordingly conducted in pomp to the lady of the tournament; where, after thanking her very reverently, he saluted her and her attendants. These tourna-



ments made the principal diversion of the thirteenth and fourteenth century. Munster says, it was Henry the Fowler, duke of Saxony, and afterwards emperor, who died in 936, that first introduced them; but it appears, from the Chronicle of Tours, that the first patron of this famous sport, at least in France, was one Geoffrey, lord of Preuilli, about A.D. 1066. Instances of them occur among the English in the reign of King Stephen, about A.D. 1140: but they were not much in use till the time of Richard I., about 1149; after which period these diversions were performed with extraordinary magnificence in the Tilt-yard near St. James's, Smithfield, &c. At last, however, they were found to be productive of bad effects, and the occasions of several fatal misfortunes; as in the instance of Henry II. of France, and of the tilt exhibited at Chalons, which, from the numbers killed on both sides, was called the little war of Chalons. These and other inconveniences resulting from these pastimes, first led the popes and finally the princes of Europe to discourage and suppress them.

**TOURNAY**, a large old town of the Netherlands, on the frontier of French Flanders, and chief place of a district in the province of Hainault. It was the *Civitas Navitorum* of the Romans. Inhabitants 22,000.

**TOURNEFORT** (Joseph Pitton de), a famous French botanist, born at Aix in Provence in 1636. He quitted the study of theology for that of natural history, and his fame as a botanist procured him in 1683 the employment of botanic professor in the king's garden: by the king's order, he travelled into Spain, Portugal, Holland, and England, where he made prodigious collections of plants. In 1700, in obedience to another order, he travelled over the isles of the Archipelago, upon the coasts of the Black Sea, in Bithynia, Pontus, Cappadocia, Armenia, and Georgia; on his return he was made professor of physic in the College Royal, and died in 1708. He wrote *Elements of Botany*, both in French and Latin; *A Voyage into the Levant*, &c.

**TOURNEFORTIA**, a genus of plants, in the class pentandria, and order of monogynia; ranking in the natural method under the forty-first order, *asperifolia*.

**TOURNIQUET**, *n. s.* Fr. *tourniquet*. A bandage used in amputations.

If the orifice does not readily appear, loosen the *tourniquet*, and the effusion of blood will direct you to it. Sharp.

The **TOURNIQUET** is an instrument formed with screws for compressing any part of the body with rollers, &c., for the stopping of hemorrhages. See **SURGERY**.

**TOURS**, a considerable town of France, the capital of the department of the Indre and Loire. It is situated in a delightful plain, on the south or left bank of the Loire, a little above the spot where that river is joined by the Cher. The city is of an oblong form, and parallel to the course of the Loire: part of the houses are low: but another part very different, having been rebuilt in a beautiful manner, and partly by aid from government, after a fire that took place in the early part of the reign of Louis

XVI. This part includes the Rue Neuve, or Rue Royale, a street of great elegance: the houses in it are built of stone, and on a uniform plan, which in a continental town is rare. This street is in a line with the bridge over the Loire, 1400 feet in length, and forty-five in breadth. It consists of fourteen arches, each of seventy-five feet in width, and ranked among the finest bridges in Europe. At some distance, but in the same line, is the bridge over the Cher; and as the great walk called the Mail extends in a line with the bridges and the Rue Neuve, nothing can be finer than the entrance into Tours, from the north or south. The approach is by long avenues bordered with trees, and the length of the whole avenues, street, and bridges, full five miles. The hotel de ville and the theatre are good provincial buildings; the other public structures are the residence of the archbishop, the hotel de l'intendance, the Jesuits' College, the Benedictine abbey. Here are also a race course, a botanical garden, and museum. The principal manufacture is silk, introduced here earlier than in any other town of France, by workmen brought from Italy in the fifteenth century. Their number increased in the course of the sixteenth to 20,000; but the competition of Lyons, situated in a climate more favorable to the silkworm, was not to be withstood, and the persons employed on the silk manufacture in Tours and its neighbourhood does not now exceed a third of the number mentioned. The other manufactures of the place are woollens and leather: some wine and brandy are made in the neighbourhood; but altogether the trade of the town, notwithstanding the vicinity of two navigable rivers, is inconsiderable. Tours is seventy miles east of Angus, and 145 S. S. W. of Paris.

**TOUSE**, *v. a.* Of the same origin as taw, tease, tose. To pull; tear; drag: whence touser, or towzer, the name of a mastiff.

As a bear whom angry curs have *touzed*,  
Having off shaken them and escaped their hands,  
Becomes more fell, and all that him withstands  
Treads down and overthrows. Spenser.

Take him hence; to the rack with him: we'll  
*towze* you joint by joint, but we will know his purpose. Shakspeare.

She tosses, tumbles, strikes, turns, *touses*, spurns,  
and sprauls,  
Casting with furious limbs her holders to the walls. Drayton.

To *towze* such things as flutter,  
To honest Bounce is bread and butter. Swift.

**TOW**, *n. s.* Sax. *top*. Flax or hemp beaten and combed into a filamentous substance.

*Tow* twisted round the handle of an instrument makes it easier to be held. Sharp.

**Tow**, *v. a.* Sax. *teon*, *teohan*, to lead; Belg. *toghen*. To draw by a rope, particularly through the water.

Thou knewest too well  
My heart was to thy rudder tied by the string,  
And thou shouldst *tow* me after.

*Shakspeare. Antony and Cleopatra.*

The seamen *towed*, and I shoved, till we arrived. Swift.

TOW'ARD, *prep. & adv.* } Sax. *toƿarð*. In  
 Tow'ARDS, } a direction to; near  
 Tow'ARDLINESS, *n. s.* } to; with tendency  
 Tow'ARDLY, *adv.* } to; near: towardli-  
 Tow'ARDNESS, *n. s.* } ness and toward-  
 ness both mean docility: towardly, docile; compli-  
 ant.

He set his face *toward* the wilderness.

*Numbers xxiv. 1.*

We brought them to as great peace between them-  
 selves as love *towards* us for having made the peace.

*Sidney.*

What might be *toward*, that this sweaty haste  
 Doth make the night joint labourer with the day.

*Shakspeare.*

The beauty and *towardliness* of these children  
 moved their brethren to envy.

*Raleigh's History of the World.*

Some young *towardly* noblemen or gentlemen were  
 usually sent as assistants or attendants.

*Bacon's Advice to Villiers.*

This was the first alarm England received *towards*  
 any trouble, after it had enjoyed for some many years  
 the most uninterrupted prosperity.

*Clarendon.*

His heart relented *towards* her.

*Milton.*

Parents will not throw away the *towardness* of a  
 child, and the expence of education, upon a profes-  
 sion, the labour of which is increased, and the re-  
 wards are vanished.

*South.*

By our law no good is to be left undone *towards*  
 all, not the good of the tongue, the hand, the heart.

*Id.*

I am *towards* nine years older since I left you.

*Swift.*

TOWCESTER, an ancient market-town of  
 Northamptonshire, situated on the Watling Street  
 Road, sixty miles N. N. W. of London, eight  
 miles and a half south-west of Northampton,  
 and ten miles and a half north from Buckingham,  
 to which last town a new turnpike road through  
 Whittlebury forest was made in 1824. Towce-  
 ster was formerly a Roman station, and many  
 Roman coins continue to be found there in the  
 gardens and fields. It lies on the banks of the  
 river Tove, which runs into the Ouse near Stony  
 Stratford. The market is held on Tuesday.  
 Fairs May 12th, and October 29th.

TOW'EL, *n. s.* Fr. *tonaille*; Ital. *tuagliolo*.  
 A cloth on which the hands are wiped.

They with their fine soft grassy *towels* stand,  
 To wipe away the drops and moisture from the hand.

*Drayton.*

The attendants water for their hands supply,  
 And, having washed, with silken *towels* dry.

*Dryden's Æneid.*

His arm must be kept up with a napkin or towel.

*Wiseman.*

TOWER, *n. s. & v. n.* } Sax. *toƿ*; Fr. *tour*;  
 Tow'ERY, *adj.* } Ital. *torre*; Lat. *turris*.  
 A high building; a building raised above the  
 main edifice; fortress; high head-dress; high  
 flight: to tower is to fly or soar high: towery,  
 furnished with towers.

Let us build us a city and a tower, whose top may  
 reach unto heaven.

*Genesis xi. 4.*

A strong tower from the enemy.

*Psalms.*

On the other side an high rock towered still.

*Spenser.*

Towers and battlements it sees  
 Bosomed in high tufted trees.

*Milton.*

No marvel

He them beholding, soon

Comes down to see their city, ere the tower

Obstruct heaven towers.

*Milton.*

Circular base of rising folds, that towered

Fold above fold, a surging maze.

*Id.*

My lord protector's hawks do tower so well.

*Shakspeare.*

Lay trains of amorous intrigues

In towers, and curls, and periwigs.

*Hudibras.*

TOWER HAMLETS, a borough of England, in  
 the county of Middlesex, comprising the liberty  
 of the Tower of London, and the Tower divi-  
 sion of the Hundred of Ossulston. It possesses  
 a population of 359,864 souls, and was ad-  
 mitted to a participation in the elective fran-  
 chise by a clause in the Reform bill. It sends  
 two members to parliament. The returning  
 officer is appointed by the sheriff of Middlesex.

TOWERS (Joseph), LL. D., an English dis-  
 senting divine, born in Southwark, in 1737, and  
 bred a printer, under Coadbey; after which he  
 commenced bookseller in London; but soon  
 after engaged in the ministry among the Presby-  
 terian Dissenters; and in 1764 became pastor  
 of a congregation in Highgate. In 1778 he was  
 chosen one of the ministers of Newington Green,  
 along with the celebrated Dr. Price. In 1779  
 he received his degree from Edinburgh. He  
 published, 1. British Biography, in 7 vols. 8vo.;  
 2. Observations on Hume's History of England;  
 3. The Life and Reign of Frederick III. of  
 Prussia, in 2 vols. 8vo.; 4. A Vindication of  
 Locke; 5. Several Sermons and Political Tracts  
 His son, after passing through many vicissitudes,  
 died in a pauper asylum in 1831

TOWN, *n. s.*

Sax. *tun*, *tinan*, shut; Belg.

TOWN'CLERK, *tun*. Any walled collection

TOWN'HOUSE, of houses; any place where a

TOWN'SHIP, market is held; the inhabitants

TOWN'SMAN, of a town; the capital: the

TOWN'TALK, compounds correspond.

She let them down by a cord; for her house was  
 upon the town wall.

*Joshua ii. 15.*

Into whatsoever city or town ye enter, enquire who  
 in it is worthy, and there abide.

*Matt. x. 11.*

The townclerk appeased the people.

*Acts xix. 35.*

Speak the speech trippingly on the tongue; but if  
 you mouth it, as many of our players do, I had as  
 lieve the town crier had spoke the lines.

*Shakspeare. Hamlet.*

I am but a poor petitioner of our whole township.

*Shakspeare.*

Here come the townsmen on procession,  
 Before your highness to present the man.

*Id.*

In the time of king Henry the sixth, in a fight be-  
 tween the earls of Ormond and Desmond, almost all  
 the townsmen of Kilkenny were slain.

*Davies on Ireland.*

To the clear spring cold Artæa went;  
 To which the whole towns for their water sent.

*Chapman.*

They marched to Newcastle, which, being de-  
 fended only by the townsmen, was given up to them.

*Clarendon.*

Before him towns, and rural works between.

*Milton.*

I left him at the gate firm to your interest,  
 T' admit the townsmen at their first appearance.

*Dryden.*

If you tell the secret, in twelve hours it shall be  
 town-talk.

*L'Estrange.*



When Alexandria was besieged and won,  
He passed the trenches first, and stormed the town.

Betterton.

A townhouse built at one end will front the church  
that stands at the other.

Addison on Italy.

He all at once let down,  
Stuns with his giddy larum half the town.

Pope.

A virgin whom her mother's care  
Drags from the town to wholesome country air.

My friend this insult sees,

And flies from towns to woods, from men to trees.

Broome.

There is some new dress or new diversion just  
come to town.

Law.

TOWNSON (Thomas), D. D., a learned divine born in Essex, in 1715, was educated at Magdalen College, Oxford, of which he became fellow. After several inferior promotions, he was appointed archdeacon of Richmond, and published, 1. Discourses on the Gospels; 2. Answer to the Confessional; and, 3. A Discourse on the Evangelical History. His works have been collected and published in 2 vols. 8vo., with a Life of the Author, who died in 1792.

TOXANDRI, an ancient people of Gallia Belgica.—Plin. v. c. 7.

TOXARIDIA, a festival held at Athens, in honor of

TOXARIS, a Scythian hero.

TOXICODENDRON, in botany. See RHUS.

TOXICOLOGY, (from *τοξικόν*, properly the poison which the ancients put upon arrows and spears); the science of poisons and antidotes. The works of Frank and Orfila are distinguished in this branch, also Buchner's and Witting's. See POISONS.

TOY, *n. s. & v. n.* } Sax. *teogan*; Goth. *teya*, to play, sport. A  
TOY'ISH, *adj.* } trifle; thing of no value;  
TOY'ISHNESS, } petty commodity; play-  
TOY'MAN, } thing; folly; play; odd  
TOY-SHOP. }

tale or fancy: to trifle; play: toyish is sportive; trifling; wanton: the noun substantive following corresponding: toyman, a seller of toys: toy-shop, his place of sale.

Shall that which hath always received this construction be now disguised with a toy of novelty?

Hooker.

'Tis a cockle, or a walnut shell,

A knack, a toy, a trick, a baby's cap.

Shakspeare.

The very place puts toys of desperation,

Without more motive, into every brain,

That looks so many fathoms to the sea,

And hears it roar beneath.

Id. Hamlet.

High and noble things I slightly may not tell,

Nor light and idle toys my lines may vainly swell.

Drayton.

They exchange for knives, glasses, and such toys,  
great abundance of gold and pearl.

Abbot.

Because of old

Thou thyself doat'st on womankind, admiring

Their shape, their colour, and attractive grace,

None are, thou think'st, but taken with such toys.

Milton.

So said he, and forbore not glance or toy  
Of amorous intent.

Id.

Your society will discredit that toyishness of wanton fancy that plays tricks with words, and frolics with the caprices of frothy imagination.

Glanville

O virtue! virtue! what art thou become,

That men should leave thee for that toy, a woman?

Dryden.

Fans, silks, ribbans, laces, and gewgaws, lay so thick together, that the heart was nothing else but a toyshop.

Addison.

In Delia's hand this toy is fatal found,

Nor could that fabled dart more surely wound.

Pope.

We smile at florists, we despise their joy,  
And think their hearts enamoured of a toy.

Young.

But what in oddness can be more sublime,

Than S—, the foremost toyman of his time? Id.

TOZE, *v. a.* See TOWSE and TEASE. To pull by violence or importunity.

Think'st thou, for that I insinuate, or toze from thee thy business, I am therefore no courtier?

Shakspeare.

TOZZETH (John Targioni), botanist, born at Florence in 1712. He studied physic at Pisa, and became keeper of the botanic garden at Florence. He wrote several works in Latin and Italian, on botany; one upon the Utility of Plants in the Practice of Physic. He died at Florence in 1783.

TOZZIA, in botany, a genus of plants of the class didynamia, and order of angiospermia; and ranking in the natural method under the fortieth order, personatae.

TRACE, *n. s. & v. a.* } Fr. *trace*, *tracer*,  
TRA'CE, *n. s.* } Span. *trazur*; Lat.

*tractus*; Ital. *traccia*. Mark left by any thing passing; footsteps; harness for a beast of burden: to trace is to follow by footsteps, or remaining marks; to mark out; follow; walk over: the noun substantive following corresponds.

Men, as they trace

Both feet and face one way are wont to lead.

Spenser.

Her waggon spokes made of long spinners' legs;

The cover, of the wings of grasshoppers;

The traces of the smallest spider's web.

Shakspeare.

We do trace this alley up and down.

Id.

Ambassadors should not be held the tracers of a plot of such malice.

Howel.

That servile path thou nobly dost decline,

Of tracing word by word, and line by line.

Denham.

These as a line their long dimension drew,

Streaking the ground with sinuous trace.

Milton.

The laboured ox

In his loose traces from the furrow came.

Id.

They do but trace over the paths beaten by the ancients, or comment, critick, or flourish upon them.

Temple.

The people of these countries are reported to have lived like the beasts among them, without any traces of order, laws, or religion.

Id.

He allows the soul power to trace images on the brain, and perceive them.

Locke.

To this haste of the mind, a not due tracing of the arguments to their true foundation is owing.

Id.

You may trace the deluge quite round the globe in profane history; and every one of these people have a tale to tell concerning the restauration.

Burnet's Theory.

The shady empire shall retain no trace

Of war or blood, but in the sylvan chase.

Pope.

Twelve young mules,

New to the plough, unpractised in the trace.

Id. Odyssey.

His pen can trace out a true quotation.

Swift.

TRACHAS, a town of Latium. Ovid.

TRACHELIUM, in botany, umbelliferous

throatwort, a genus of plants in the class pentandria, and order of monogynia; ranking in the natural method under the twenty-ninth order, campanaceæ.

TRACHINIA, a country of Thessaly, in Phthiotis. Trachis was the capital.

TRACHINUS, in ichthyology, the weever, a genus of fishes belonging to the order of jugulares. There is but one species, viz. *T. draco*, or common weever. It grows to the length of twelve inches, but is commonly found much less; the irides are yellow; the under jaw is longer than the upper, and slopes very much towards the belly; the teeth are small; the back is straight, the sides are flat, the belly is prominent, the lateral line straight: the covers of the gills are armed with a very strong spine: the first dorsal fin consists of five very strong spines, which, as well as the intervening membranes, are tinged with black; this fin, when quiescent, is lodged in a small hollow: the second consists of several soft rays, commences just at the end of the first, and continues almost to the tail: the pectoral fins are broad and angular; the ventral fins small; the vent is placed remarkably forward, very near the throat: the anal fin extends to a small distance from the tail, is a little hollowed in the middle, but not so much as to be called forked: the sides are marked lengthwise with two or three dirty yellow lines, and transversely by numbers of small ones; the belly silvery. The wounds inflicted by its spines are exceedingly painful, attended with a violent burning and most pungent shooting, and sometimes with an inflammation that will extend from the arm to the shoulder. The remedy used by some fishermen is the sea sand, with which they rub the place affected for a considerable time. At Scarborough, stale urine warmed is used with success. An instance is mentioned of a person who was reduced to great danger by a wound from this fish, and who was cured by the application of sweet oil, and taking opium and Venice treacle. This fish buries itself in the sands, leaving only its nose out, and if trodden on immediately strikes with great force. Notwithstanding this noxious property of the spines, it is exceedingly good meat.

TRACK, *n. s. & v. a.* } Old Fr. *trac*; Ital. *trac*kless, *adj.* } *traccia*. Mark left upon the way by the foot or otherwise; trace; road: to trace; follow by the footsteps: trackless, untrodden; unmarked by roads or footsteps.

As shepherd's cur that in dark evening's shade  
Hath *traced* forth some savage beast's tread.

With *track* oblique sidelong he works his way.

He was not only a professed imitator of Horace, but a learned plagiarist in all the others; you *track* him every where in their snow.

Hung by the neck and hair, and dragged around,  
The hostile spear yet sticking in his wound,  
With *tracks* of blood inscribed the dusty ground. *Id.*  
Behold Torquatus the same *track* pursue,  
And next the two devoted Decii view. *Id. Æneid.*

Consider the exterior frame of the globe, if we may find any *tracks* or footsteps of wisdom in its constitution.

Lost in *trackless* fields of shining day.

Unable to discern the way,  
Which Nassau's virtue only could explore.

Following the *track* of Satan.

TRACT, *n. s.* } Lat. *tractus*. Any  
TRACTABLE, *adj.* } kind of extended substance; any thing pro-  
TRACTABLENESS, *n. s.* } tracted; continuity;  
TRACTATE, } course; process;  
TRACTILE, *adj.* } treatise; discourse:  
TRACTILITY, *n. s.* } tractable is easily  
TRACTION. } guided into a course; manageable; the noun substantive corresponding: tractate is a treatise; discourse; book: tractile, capable of being drawn out into length; ductile: tractility and traction corresponding.

For moderation of those affections growing from the very natural bitterness and gall of adversity, the scripture much allegeth contrary fruit, which affliction likewise hath, whensoever it falleth on them that are *tractable*, the grace of God's holy spirit concurring therewith.

Tractable obedience is a slave  
To each incensed will.

The *tract* of every thing  
Would by a good discourser, lose some life  
Which action's self was tongue to. *Id. Henry VIII.*

The weary sun hath made a golden set,  
And, by the bright *tract* of his fiery ear,  
Gives signal of a goodly day to-morrow.

Only there are some *tracts* which, by high mountains, are barred from air and fresh wind.

The consistences of bodies are very divers; fragile, tough; flexible, inflexible; *tractile*, or to be drawn forth in length, intractile. *Bacon's Natural History.*

Many divines of our own nation, in sermons and written *tractates* of the sabbath, and in their expositions of the fourth commandment, maintain the foresaid position.

The myrtle flourisheth still; and wonderful it is that for so long a *tract* of time she should still continue fresh.

If a strict hand be kept over children from the beginning, they will in that age be *tractable*, and quietly submit.

Monte Circolo, by Homer called *Insula Æea*, is a very high mountain joined to the main land by a narrow *tract* of earth.

Silver, whose ductility and *tractility* are much inferior to those of gold, was drawn out to so slender a wire, that a single grain amounted to twenty-seven feet.

The church clergy at that time writ the best collection of *tracts* against popery that ever appeared.

TRACTRIX, in geometry, a curve line; called also CATENARIA: which see.

TRADE, *n. s., v. n. & v. a.* } Italian *tratto*;  
TRA'DED, *adj.* } Span. *trato*; Lat. *tracto*. Traffic;  
TRADEFUL, } commerce; ex-  
TRA'DER, *n. s.* } change of goods  
TRADES'FOLK, } for other goods,  
TRADES'MAN. } or for money; em-  
TRADE'WIND. } ployment, manual or mercantile; custom; habit:

to trade is to traffic; deal commercially; act mercenarily; have a tradewind: sell or exchange commercially: tradewind, the monsoon, a periodical tropical wind: traded is accustomed; practised: tradeiful, commercial: a trader and



tradesman, one who is employed in trade: the former, however, is applied to merchants, not the latter: tradesfolk, people employed in trade.

They were thy merchants: they *traded* the persons of men and vessels of brass in thy market.

*Ezekiel*, xxvii. 13.

He commanded these servants to be called, to know how much every man had gained by *trading*.

*Luke*, xix. 15.

Appoint to every one that is not able to live of his freehold a certain *trade* of life; the which *trade* he shall be bound to follow. *Spenser on Ireland*.

Ye *trade*ful merchants, that with weary toil

Do seek most precious things to make your gain,

And both the Indies of their treasure spoil,

What needeth you to seek so far in vain? *Spenser*.

Pilgrims are going to Canterbury with rich offerings, and *traders* riding to London with fat purses.

*Shakespeare*. *Henry IV*.

I'll mountebank their loves, and come home beloved

Of all the *trades* in Rome.

*Id.* *Coriolanus*.

I'll live by the awl, I meddle with no *tradesmen's* matters.

*Id.*

Eyes and ears,

Two *traded* pilots 'twixt the dangerous shores

Of will and judgment. *Id.* *Troilus and Cressida*.

Whosoever commands the sea, commands the *trade*; whosoever commands the *trade* of the world, commands the riches of the world, and consequently the world itself.

*Raleigh*.

Call some of young years to train them up in that *trade*, and so fit them for weighty affairs. *Bacon*.

Order a *trade* thither and thence so as some few merchants and *tradesmen*, under colour of furnishing the colony with necessaries, may not grind them.

*Id.*

They on the *trading* flood ply toward the pole.

*Milton*.

Comfortable is the *trade-wind* to the equatorial parts, without which life would be both short and grievous.

*Cheyne*.

The emperor Pertinax applied himself in his youth to a gainful *trade*; his father, judging him fit for a better employment, had a mind to turn his education another way; the son was obstinate in pursuing so profitable a *trade*, a sort of merchandise of wood.

*Arbuthnot on Coins*.

His were the projects of perpetuum mobiles, and of increasing the *trade-wind* by vast plantations of reeds.

*Arbuthnot*.

M. Jourdan would not be thought a *tradesman*, but ordered some silk to be measured out to his partner's friends: now I give up my shop.

*Prior*.

Boastful and rough, your first son is a squire;

The next a *tradesman*, meek, and much a liar.

*Pope's Epigrams*.

That day *traders* sum up the accounts of the week.

*Swift*.

Domesticks in a gentleman's family have more opportunities of improving their minds than the ordinary *tradesmen*.

*Id.*

By his advice victuallers and *tradesfolk* would soon get all the money of the kingdom into their hands.

*Id.*

Penitens was a busy notable *tradesman*, very prosperous in his dealings, but died in the thirty-fifth year of his age.

*Law*.

TRADESCANT (John), an ingenious naturalist, said to have been a native of Flanders, who established the first museum in this country, at South Lambeth, about the end of the reign of Elizabeth. It was sold to Elias Ashmole, and deposited at Oxford.

TRADESCANT (John), the son and grandson of the preceding, were also eminent botanists, antiquaries, and collectors of antiquities, plants, fossils, &c., but no particular memoir is preserved of any of the three, except what is recorded on their monument in Lambeth churchyard.

TRADESCANTIA, in botany, Virginian spider-wort, a genus of plants, in the class hexandria, and in the order of monogynia; ranking in the natural method under the sixth order, *entatae*.

TRADE-WINDS (so called from their favouring commerce); easterly winds which constantly prevail, with slight variations, in certain regions within the tropics. It is a common notion, that the north-east trade-wind blows exactly from the north-east point nearly to the equator, when it gradually becomes more and more easterly, till at length it blows due east; and so with the south-east trade. This notion is, however, erroneous. The trade-winds in the Atlantic and Pacific oceans, extend to about 28° of latitude each side of the equator; so that a ship, after passing 30°, may expect to enter them every day. But, on first entering them, they will be found to blow from the east, or even a little southerly, and as you advance, to draw round gradually to north-east, and even north, at the southern limit of the north-east trade, where it is commonly represented as being due east. This limit varies with the position of the sun, reaching, when the sun has a southern declination, to within three or four degrees north latitude, and, as the sun acquires a more northern declination, receding ten or twelve degrees from the equator. At this point, the mariner enters the region of *calms* and *variables*, as they are called, where the wind has a more or less southerly direction, and sometimes blows freshly from the south-south-west. This region varies from 150 to 550 miles, and is subject to heavy rains. On passing this range, the south-east trade begins, and displays the same phenomena as the north-east. To the north and south of the north-east, and south-east trades, westerly winds will be found generally to prevail, though less regular in the northern than in the southern hemisphere; and it has been remarked that the average of the passages made by the Liverpool packets from New York out, for a period of six years, was twenty-three days, and from Liverpool to New York, that is, from east to west, thirty-eight days.

TRADITION, *n. s.*

TRADITIONAL, *adj.*

TRADITIONALLY, *adv.*

TRADITIONARY, *adj.*

TRADITIVE.

mouth; unwritten communication from age to age; anything so communicated; traditional and traditionary mean delivered by tradition: traditive, transmissible in that way: the adverb corresponding with traditional, which is also (improperly) used for observant of traditions.

TRADUCE, *v. a.*

TRADUCEMENT, *n. s.*

TRADUCIBLE, *adj.*

TRADUC'TION, *n. s.*

French *tradition*, Latin *traditio*. The act or practice of delivering accounts from mouth to mouth; *traduco*; Fr. *traduement*, *n. s.* To censure; condemn; represent as blameable; calumniate;

also, retaining the Latin sense of *duco*: more strictly, to lead out; propagate; continue: traducement we only find used in the former senses: traducible is such as may be derived: traduction, derivation from one of the same kind; transmission; tradition.

The best stratagem that Satan hath, who knoweth his kingdom to be no one way more shaken than by the publick devout prayers of God's church, is by *trading* the form and manner of them, to bring them into contempt.

Hooker.

TRAFALGAR, a cape of Spain, on the coast of Andalusia, at the entrance of the straits of Gibraltar, opposite to Cape Esparte, on the coast of Africa; off which, on the 21st of October, 1805, the British fleet, commanded by lord Nelson, obtained the memorable victory over the combined fleets of France and Spain, which cost his country his valuable life.

TRAFFIC, *n. s.* & *v. n.* } *Fr. trafique*; *Ital.*

TRAFFICKER, *n. s.* } *traffico*; *Span. traficar*. Commerce; merchandizing; large trade. It was formerly used of foreign commerce in distinction from trade: he who conducts traffic.

You'll see a draggled damsel

From Billingsgate her fishy traffic bear. Gay.

TRAGEDY, *n. s.*

TRAGEDIAN, *n. s.*

TRAGIC, *adj.*

TRAGICALLY, *adv.*

TRAGICALLY, *adv.*

TRAGICALLY, *adv.*

TRAGICALLY, *adv.*

TRAGICALLY, *adv.*

TRAGICALLY, *adv.*

*Fr. tragédie*; *Lat. tragædia*. A dramatic representation of a serious action: any mournful or dreadful event: a tragedian is a writer or actor of tragedy: tragic, tragical, and tragically, follow both the particular and general sense of tragedy; tragicomedy is a drama composed of serious and comical events, with which sense the adjective and adverb following correspond.

TRAGEDY (from the Greek and Latin *tragædia*). The Greek word is derived from *τραγος*, and *ᾠδή*, a song. It is an old, but not, therefore, less absurd opinion, says Adelung, in his *Wörterbuch*, that the first part of the word *τραγος* signifies, in this composition, a he goat, and the whole, a song in honor of Bacchus, sung at the sacrifice of a he goat, or a play for which the poet received a he goat—a derivation occasioned by its being generally known that *τραγος* signifies a he goat, while it is not so commonly known that it also signifies *melancholy*, of which the Latin *tragicus* is a clear proof; otherwise that word would have signified *goatish*. Hesychius explains *ετραγωδῆς*, explicitly, by *απορμύζει, αποθρηνει*, he weeps. In the ancient Upper German, the word *trago* signifies grief; in Lower Saxon, *tra'ge* is weary, sad: and in Swedish, *tråga* means to mourn, and *tråge*, grief: all of which are connected with the Greek *τραγικός* or *τραγος*. Tragedy, therefore, properly signifies a melancholy song, as comedy signifies a gay one. But that *τραγος* in Greek signifies both a he goat and melancholy, is as accidental as that *ram*, in English, means a male sheep, and also to drive down. So far Mr. Adelung. The invention of tragedy, in its first rude form, is ascribed to Thespis, who lived in the time of Solon. According to Herodotus, the people of

Sicyon introduced tragic choruses before the times of Thespis, first in honor of Bacchus, then of Adrastus: to them, therefore, the invention of the Greek tragedy is generally ascribed; its development is due to Æschylus. As Aristotle found it, he described it as a dramatic poem, which has for its object to purify by terror and pity, awakened by the poetical imitation of an action. To understand this oft-repeated explanation, we must examine the meaning of purifying passions by means of passions. The artificial production of those passions which affect us disagreeably, cannot well have any effect in purifying the soul, except by strengthening the mind, and exercising it in governing the passions in general. For such a purpose, indeed, a state of mind seems proper, in which man feels at the same time the influence of strong emotions, and the power to free himself from their influence at pleasure. Into this state tragedy strives to bring us. It aims to awaken in us those passions which rest on sympathy, (and which, therefore, impede our inward freedom less than the purely selfish ones), by an artificial appearance, by truth of conception without reality of action, and whilst it does not hide the want of reality, it leaves us the feeling of ability to free ourselves from the influence of the scene at pleasure, even if it were only by the consciousness that the whole is but appearance. Who could calmly witness the performance of a tragedy if he really thought, but for a moment, the sufferings represented on the stage were real? The poet strives to operate upon us by the liveliness of his creations, and thus to arouse within us those powers which counteract the passions. As the exercise of these powers is the object in view, he must avoid carrying the sympathetic emotion so far, that we can escape the pain only by a complete destruction of the illusion; because, as soon as we take this means, that exercise of the moral faculty ceases. We must be able to suffer the conception of being in the situation of the actors, even when we see them perish, by feeling in ourselves the existence of those powers, of which they, for the moment, seem to be deprived. From this point of view, the definition of Aristotle is perhaps to be reconciled with what has been said, in modern times, on the essence of tragedy. Even dramatic writers have confounded the melancholy with the tragic; but it may be deduced from what has been said, that the essence of tragedy does not depend on the melancholy end, on the tears extorted, but on the greatness and elevation of the chief idea contained in the fable, and which it illustrates as by a living example. Whilst we pity the suffering depicted, we must be able to delight in the nobleness of its cause, as, otherwise, no feeling is excited in us but a purely painful one, from which we can only escape by the idea that the whole spectacle is an illusion. Many theories have been started to explain what is properly the tragical in tragedy, some very obscure, others less so; as, that the tragical is founded on the struggle of human freedom with necessity, of the will with fate, &c. But the comic, the true comic, is, in many cases, nothing else. This struggle belongs to the drama in general.



An anthem to their god Dionysus, whilst the goat stood at his altar to be sacrificed, was called the goat-song or *tragedy*.

*Rymer's Tragedies of the Last Age.*

Bid them dress their bloody altars

With every circumstance of *tragick* pomp. *Rowe.*

The tale of this song is a pretty *tragic* story; and pleases, because it is a copy of nature.

*Addison.*

The whole art of the *tragi-comical* farce lies in interweaving the several kinds of the drama, so that they cannot be distinguished.

*Gay's What d' ye call it?*

Like bold Phætons, we despise all benefits of the father of light, unless we may guide his chariot; and we moralize the fable as well in the *tragic*ness of the event, as in the insolence of the undertaking.

*Decay of Piety.*

TRAGIA, in botany, a genus of plants, in the class of monœcia, and order of triandria, ranking according to the natural method, in the eighteenth order, tricoceæ.

TRAGOPOGON, goat's beard, in botany, a genus of plants belonging to the class of syngenesia, and to the order of polygamia æqualis; and in the natural system ranging under the fourth order, compositæ. The receptacle is naked, the calyx simple, and the pappus plumose. There are fourteen species; of which two are British. 1. *T. porrifolium*, the purple goat's beard, has the calyx longer than the radius of the floret; the flowers are large, purple, single, and terminal; and the leaves long, pointed, and bluish. The root is long, thick, and esculent. It grows in meadows, and is cultivated in gardens under the name of salsafy. 2. *T. pratense*, the yellow goat's beard, has its calyxes equal with the florets, and its leaves entire, long, narrow, sessile, and grassy. In fair weather this plant opens at sun rising, and shuts between nine and ten in the morning. The roots are conical and esculent, and are sometimes boiled and served up at table like asparagus. It grows on meadows.

TRAGURIUM, an ancient town of Dalmatia, on the sea coast.

TRAGUS, a river of ancient Arcadia, running into the Alpheus.

TRAJAN (Marcus Ulpius), a celebrated Roman emperor, who gained many victories over the Parthians and Germans, pushing the empire to its utmost extent on the east and north sides. He died at Selinunte, a city of Cilicia, which from him was called Trajanopolis. See PARTHA, and ROME.

TRAJANOPOLI, a considerable town of European Turkey, in Romania, situated on the right bank of the Maritza, the ancient Hebrus, about thirty miles from its mouth. It is the see of a Greek archbishop, and contains about 15,000 inhabitants.

TRAJANOPOLIS, an ancient town of Thrace. — 2. A name given to Selinus, where Trajan died.

TRAJAN'S COLUMN, a famous historical column erected in Rome, in honor of the emperor Trajan. It is of the Tuscan order, though somewhat irregular: its height is eight diameters, and its pedestal Corinthian: it was built in a large square called Forum Romanum. Its base con-

sists of twelve stones of an enormous size, and is raised on a fœle, or foot, of eight steps; with-inside is a staircase illuminated with forty-four windows. It is 140 feet high, which is thirty-five feet short of the Antonine column, but the workmanship of the former is much more valued. It is adorned from top to bottom with basso relievos, representing the great actions of the emperor against the Dacians.

TRAJECT, *v. a. & n. s.* } Latin *trajectus*.

TRAJECTION, *n. s.* } To cast through; throw; used by Shakspeare, as a noun substantive, for a ferry: trajection is the act of darting through.

What notes and garments he doth give thee,  
Bring to the *traject*, to the common ferry,  
Which trades to Venice.

*Shakspeare. Merchant of Venice.*

The *trajections* of such an object more sharply pierce the martyred soul of John, than afterwards did the nails the crucified body of Peter.

*Broune's Vulgar Errours.*

Later astronomers have observed the free motion of such comets as have, by a *trajection* through the æther, wandered through the celestial or interstellar part of the universe. *Boyle.*

If there are different kinds of æther, they have a different degree of rarity; by which it becomes so fit a medium for *trajecting* the light of all celestial bodies.

*Grew's Cosmologia.*

If the sun's light be *trajected* through three or more cross prisms successively, those rays which in the first prism are refracted more than others, are in all the following prisms refracted more than others in the same proportion. *Newton.*

TRAJECTORY, a term often used, generally for the path of any body, moving either in a void, or in a medium that resists its motion; or even for any curve passing through a given number of points.

TRAJECTUS RHEMI, the name given by the Romans to the town and province now called Utrecht.

TRAIL, *v. a., v. n., & n. s.* Fr. *trailer*; Belg. *træglén*. To hunt by the track; draw or drag along: be drawn out: the noun substantive means track; scents followed: any thing drawn out in length or drawn behind.

When his brother saw the red blood *trail*  
Adown so fast, and all his armour steepe,  
For very felness loud he 'gan to weep. *Spenser.*

And round about her work she did empale  
With a fair border wrought of sundry flowers,  
Enwoven with an ivy winding *trail*.

*Id. Muiopotmos.*

Beat thou the drum, that it speak mournfully;  
*Trail* your steel pikes. *Shakspeare. Coriolanus.*

How cheerfully on the false *trail* they cry!  
Oh, this is counter, you false Danish dogs.

*Shakspeare.*

Swift men of foot, whose broad-set backs their  
*trailing* hair did hide. *Chapman.*

Because they shall not *trail* me through their  
streets

Like a wild beast, I am content to go.

*Milton. Agonistes.*

Since the flames pursued the *trailing* smoke,  
He knew his boon was granted.

*Dryden's Knight's Tale.*

Faintly he staggered through the hissing through  
And hung his head and *trailed* his legs along.

*Dryden.*

When lightning shoots in glittering *trails* along,  
It shines, 'tis true, and gilds the gloomy night;  
But when it strikes, 'tis fatal. *Rowe's Royal Convert.*

A sudden star it shot through liquid air,  
And drew behind a radiant *trail* of hair. *Pope.*

Thrice happy poet, who may *trail*  
Thy house about thee like a snail. *Swift.*

TRAIN, *v. a. & n. s.* } *Fr. trainer; Ital.*

TRAIN-BAND, *n. s.* } *trainare, of Lat. trahino,*  
*traho.* To draw along; allure; entice; educate;  
exercise: as a noun substantive, series; flowing  
part of a robe; procession; tail of a bird; retinue;  
artifice; stratagem; the line of powder leading to  
a mine: trainbands, a kind of militia.

Abram armed his *trained* servants born in his  
house, and pursued. *Gen. xiv. 14.*

A place for exercise and *training* up of youth in  
the fashion of the heathen. *2 Mac. iv. 9.*

He cast by treaty and by *trains*  
Her to persuade. *Spenser.*

A thousand pounds a year, for pure respect!  
That promises more thousands: honour's train  
Is longer than his fore skirts.

*Shakespeare. Henry VIII.*  
My *train* are men of choice and rarest parts,  
That in the most exact regard support  
The worshippers of their names. *Shakespeare.*

For that cause I *trained* thee to my house. *Id.*  
If but twelve French

Were there in arms, they would be as a call  
To *train* ten thousand English to their side. *Id.*

Costly followers are not to be liked, lest, while a  
man makes his *train* longer, he makes his wings  
shorter. *Bacon.*

Call some of young years to *train* them up in that  
trade, and so fit them for weighty affairs. *Id.*

Their general did with due care provide,  
To save his men from ambush and from *train*.

*Fairfax.*  
The bird guideth her body with her *train*, and the  
ship is steered with the rudder. *Hakewill.*

This moved the king,  
To lay to draw him in by any *train*.

*Daniel's Civil War.*  
With an army abundantly supplied with a *train* of  
artillery, and all other provisions necessary, the king  
advanced towards Scotland. *Clarendon.*

He directed the *train-bands*, which consisted of the  
most substantial householders, to attend. *Id.*

The other, whose gay *train*  
Adorns him coloured with the florid hue  
Of rainbows and starry eyes. *Milton.*

Spirits *trained* up in feast and song. *Id.*  
Now to my charms

And to my wily *trains*! I shall ere long  
Be well stocked with as fair a herd as grazed  
About my mother Circe. *Id.*

Contracting their body, and being forced to draw  
in their fore parts to establish the hinder in the eleva-  
tion of the *train*; if the fore parts do part and incline  
to the ground, the hinder grow too weak, and suffer  
the *train* to fall. *Browne.*

A council of war was called, wherein we agreed to  
retreat: but, before we could give the word, the *train-*  
*bands*, taking advantage of our delay, fled first.

*Addison.*  
He would put a check to the fury of war, that a  
stop might be put to those sins which are of its *train*.  
*Smaltridge.*

If things were once in this *train*, if virtue were es-  
tablished as necessary to reputation, and vice not  
only loaded with infamy, but made the infallible ruin  
of all men's pretensions, our duty would take root in  
our nature. *Swift.*

The author of your beings can by a glance of the  
eye, or a word speaking, enlighten your mind, and  
conduct you to a *train* of happy sentiments. *Watts.*

TRAIPSE, *v. a.* See *TRAPE*. A low word.  
To walk in a careless or sluttish manner.

Two slip-shod muses *traipse* along,  
In lofty madness, meditating song. *Pope.*

TRAIT, *n. s.* *Fr. trait; Ital. tratto; Lat. trac-*  
*tus.* A stroke; touch. Scarcely English: yet of  
late very common.

The harmonizing tints and softer *traits*  
Elusive shun the crude observer's gaze,  
And justly to discriminate demand  
A practised pencil and a master hand.

*Whyte's Poems.*

By this single *trait* Homer marks an essential dif-  
ference between the Iliad and Odyssey; that in the  
former the people perished by the folly of their kings;  
in this, by their own folly.

*Broome's Notes on the Odyssey.*

TRAITOR, *n. s.* } *Fr. traître; Lat. tra-*  
TRAITORLY, *adj.* } *ditor.* One who being  
TRAITOROUS, *adj.* } trusted betrays: *trai-*  
TRAITOROUSLY, *adv.* } *tress* is the feminine of  
TRAITRESS, *n. s.* } traitor; and the deriva-  
tives strictly correspond.

The law laid that grievous punishment upon *trai-*  
*tors*, to forfeit all their lands to the prince, that men  
might be terrified from committing treasons.

*Spenser on Ireland.*

Good duke Humphry *traiterously* is murdered  
By Suffolk. *Shakespeare. Henry VI.*

If you flatter him, you are a great *traitor* to him.  
*Bacon.*

Thou bitter sweet! whom I had laid  
Next me, me *traiterously* hast betrayed;  
And unsuspected half invisibly  
At once fled into him, and stayed with me. *Donne.*

Pontinius knows not you,  
While you stand out upon these *traitorous* terms.

*Ben Jonson.*

What news with him, that *traitorous* wight?  
*Daniel.*

They had *traitorously* endeavoured to subvert the  
fundamental laws, deprive the king of his regal  
power, and to place on his subjects a tyrannical  
power. *Clarendon.*

I, what I am, by what I was, o'ercome:  
*Traitress*, restore my beauty and my charms,  
Nor steal my conquest with my proper arms.  
*Dryden.*

By the dire fury of a *traitress* wife,  
Ends the sad evening of a stormy life.

*Pope's Odyssey.*

There is no difference, in point of morality,  
whether a man calls me *traitor* in one word, or says  
I am one hired to betray my religion, and sell my  
country. *Swift.*

TRAITORS' ISLAND, an island in the Pacific  
Ocean, discovered by Le Maire and Schouten,  
in 1616, and so called from an attempt made by  
the natives to seize the vessel. It is low, with a  
hill in the centre, and divided by a channel 300  
yards wide, from the island of Kootabe. Both  
these islands were visited by captain Wallis in  
1767, who called them Keppel's and Boscauwen's  
Islands: and afterwards by Perouse in 1787.  
The inhabitants strictly resemble the others of  
the Friendly Islands. Long. 173° 48' W., lat.  
15° 55' N.



**TRALATITIOUSLY**, *adv.* Of Lat. *trans-latus*. Metaphorically; not literally; not according to the first intention of the word.

Language properly is that of the tongue directed to the ear by speaking; written language is *tralatitiously* so called, because it is made to represent to the eye the same words which are pronounced.

*Holder's Elements of Speech.*

**TRALINEATE**, *v. n.* Trans and line. To Jeviate from any direction.

If you *tralineate* from your father's mind,  
What are you else but of a bastard kind?  
Do then as your progenitors have done,  
And by their virtues prove yourself their son.

*Dryden.*

**TRALLES**, an ancient people of Illyricum.

**TRALLIAN** (Alexander), a Greek writer on physic, a native of Tralles in Lydia, who lived about the middle of the sixth century. He was the first who opened the jugular vein, and used cantharides as a blister for the gout.

**TRAMMEL**, *n. s. & v. a.* Fr. *tramail*; Lat. *trama*, *tragula*. A net in which birds or fish are caught; any kind of net or shackles: to catch; interfere.

If the assassination

Could *trammel* up the consequence, and catch  
With its surcease success.

*Shakespeare. Macbeth.*

The *trammel* differeth not much from the shape of the bunt, and serveth to such use as the wear and haking.

*Carew.*

I may go shufflingly at first, for I was never before walked in *trammels*; yet I shall druge at constancy, till I have worn off the hitching in my pace.

*Dryden's Spanish Fryar.*

**TRAMMELS**, in mechanics, are also an instrument used by artificers for drawing ovals upon boards, &c. One part of it consists of a cross with two grooves at right angles; the other is a beam carrying two pins, which slide in those grooves, and also the describing pencil.

**TRAMPLE**, *v. a. & v. n.* Dan. *trampe*. To tread under foot with pride, contempt, or elevation: tread in contempt.

Cast not your pearls before swine, lest they *trample* them under their feet.

*Matt. vii. 6.*

My strength shall *trample* thee as mire.

*Milton.*

Your country gods I scorn,  
And *trample* on their ignominious altars.

*Rowe.*

Diogenes *trampled* on Plato's pride with greater of his own.

*Government of the Tongue.*

**TRANCE**, *n. s.* } Fr. *transe*; Lat. *transitus*.

**TRAN'CED**, *adj.* } An ecstasy; a state in which the soul is rapt into visions of future or distant things. See **TRANSE**. The adjective corresponds.

Gynecia had been in such a *trance* of musing that Zelmene was fighting with the lion before she knew of any lion's coming.

*Sidney.*

Rapt with joy resembling heavenly madness,  
My soul was ravish'd quite as in a *trance*.

*Spenser's Sonnets.*

That Taliessen, once which made the rivers dance,  
And in his rapture raised the mountains from their *trance*.

*Drayton.*

Abstract as in a *trance*, methought I saw.

*Milton.*

**TRAN'GRAM**, *n. s.* A cant word. An odd intricately contrived thing.

What's the meaning of all these *trigrams* and gimeracks? what are you going about, jumping over

my master's hedges, and running your lines cross his grounds?

*Arbutnotor.*

**TRANI**, a considerable town of Naples, province of Bari, situated on the Adriatic, is better built than most towns in this part of Italy. Thirty-five miles south of Adrianople, has a fine cathedral and good harbour. Inhabitants 14,000.

**TRAN'NEL**, *n. s.* Perhaps from *trennel*. A sharp pin.

With a small *trannel* of iron, or a large nail grounded to a sharp point, they mark the brick.

*Moxon's Mechanical Exercises.*

**TRAN'QUIL**, *adj.* } Fr. *tranquille*; Latin  
**TRAN'QUILITY**, *n. s.* } *tranquillus*. Quiet;  
peaceful; undisturbed: state of being so.

Leave off,

To let a weary wretch from her due rest,  
And trouble dying souls *tranquillity*.

*Spenser.*

I had been happy,

So I had nothing known. Oh now, for ever  
Farewel the *tranquil* mind! farewel content!

*Shakspeare.*

You can scarce imagine any hero passing from one stage of life to another with so much *tranquillity*, so easy a transition, and so laudable a behaviour.

*Pope.*

**TRANS**, a Latin preposition, signifying beyond, or on the farther side; makes part of many English words, conveying some idea of that kind, either local or metaphorical. It also made part of the ancient names of many countries, distant from Rome, and opposed Cis, on this side; as Transalpine, beyond the Alps; Transpadane, beyond the Po, &c.

**TRANSACT**, *v. a.* } Latin *transactus*. To  
**TRANSACTION**, *n. s.* } manage; negotiate; conduct a treaty or affairs; perform; do: the noun substantive corresponding.

It is not the purpose of this discourse to set down the particular *transactions* of this treaty.

*Clarendon.*

It cannot be expected they should mention particulars which were *transacted* among some few of the disciples only, as the transfiguration and the agony.

*Addison.*

**TRANSALPINA GALLIA**. See **GALLIA**.

**TRANSALPINE**, trans and Alpes. Beyond the Alps.

**TRANSANIMATION**, *n. s.* Trans and anima. Conveyance of the soul from one body to another.

If the *transanimation* of Pythagoras were true, that the souls of men transmigrate into species answering their former natures, some men cannot escape that very brood whose sire Satan entered.

*Brownie's Vulgar Error.*

**TRANSCEND**, *v. a. & v. n.* } Lat. *transcendo*.

**TRANSCEND'ENCE**, *n. s.* } To pass; over-

**TRANSCEND'ENCY**. } pass; outgo;

**TRANSCEND'ENT**, *adj.* } excel: as a verb

**TRANSCEND'ENTAL**. } neuter, to climb;

**TRANSCEND'ENT'LY**, *adv.* } exceed thought:

transcendence and transcendency, excellence; exaggeration; excessive elevation: transcendent is excellent; surpassing: the adverb corresponding: transcendental, supereminent; also general, pervading many particulars.

It is true greatness to have in one the frailty of a man, and the security of a God; this would have done better in poesy, where *transcendencies* are more allowed.

*Bacon's Essays.*

It is a dangerous opinion to such popes as shall transcend their limits and become tyrannical.

Bacon.

To judge herself, she must herself transcend,  
As greater circles comprehend the less.

Davies.

Thou, whose strong hand, with so transcendent worth,

Holds high the reign of fair Parthenope.

Crashaw.

The consistence of grace and free will, in this sense, is no such transcending mystery, and I think there is no text in scripture that sounds any thing towards making it so.

Hammond.

These are they  
Deserve their greatness and unenvied stand,  
Since what they act transcends what they command.

Denham.

If thou beest he—But O! how fallen, how changed  
From him who in the happy realms of light,  
Cloathed with transcendent brightness, didst outshine  
Myriads, though bright!

Milton.

This glorious piece transcends what he could think;  
So much his blood is nobler than his ink.

Waller.

High though her wit, yet humble was her mind  
As if she could not, or she would not find  
How much her worth transcended all her kind.

Dryden.

Though the Deity perceiveth not pleasure nor pain  
as we do; yet he must have a perfect and transcendental perception of these, and of all other things.

Greut's Cosmologia.

The law of Christianity is eminently and transcendently called the word of truth.

South's Sermons.

Oh charming princess! oh transcendent maid!

Philips.

**TRANSCENDENTAL CURVE**, in the higher geometry, is such a one as cannot be defined by any algebraical equation; or of which, when it is expressed by an equation, one of the terms is a variable quantity.

These are the same with what Descartes, and, after his example, several others, call mechanical curves, and which they would have excluded out of geometry; but Sir Isaac Newton and M. Leibnitz are of another opinion: for, in effect, in the construction of geometrical problems, one curve is not to be preferred to another, as it is defined by a more simple equation, but as it is more easily described than that other. And some of these transcendental or mechanical curves are found of greater use than all the algebraical ones together, except the circle. Leibnitz, in the *Acta Eruditor*, Lips., gives us a kind of transcendental equations, by which these transcendental curves are actually defined, and which are of an indefinite degree; that is, are not always the same, in all the points of the curve.

Whereas therefore algebraists use to assume some general letters or numbers of the quantities sought, in these transcendental problems, Leibnitz assumes general or indefinite equations for the lines sought; *e. gr.* putting  $x$  and  $y$  for the absciss and ordinate, the equation he uses for a line sought is  $a + bx + cy + ex + yfx + gy + y$ , &c., = 0. By the help of which indefinite equation, which in reality is finite, for it may always be determined how far soever it is necessary to raise it, he seeks the tangent; and, comparing that which results with the given property of tangents, he finds the value of the assumed letters  $a, b, c$ , and thus defines the equa-

tions of the line sought. If the comparison above-mentioned do not proceed, he pronounces the line sought not to be an algebraical, but a transcendental one.

This supposed he goes on to find the species of transcendency; for some transcendentals depend on the general division or section of a ratio, or upon the logarithms, others upon the arcs of a circle, and others on more indefinite and compound enquiries. Here, therefore, besides the symbols  $x$  and  $y$ , he assumes a third, as  $v$ , which denotes the transcendental quantity; and of these three forms a general equation of the line sought, from which he finds the tangent according to the differential method, which succeeds even in transcendental quantities. What he finds he compares with the given properties of the tangent, and so discovers not only the value of  $a, b, c$ , &c., but also the particular nature of the transcendental quantity. And though it may sometimes happen that the several transcendentals are so to be made use of, and these of different natures, too, one from another; also, though there be transcendentals, or transcendental, and a progression of these in infinitum; yet we may be satisfied with the most easy and useful one, and for the most part may have recourse to some peculiar artifices for shortening the calculus, and reducing the problem to as simple terms as may be.

In order to manage transcendental problems (wherever the business of tangents or quadratures occurs) by a calculus, there is hardly any that can be imagined shorter, more advantageous, or universal, than the differential calculus or analysis of indivisibles and infinities.

By this method we may explain the nature of transcendental lines by an equation; *e. g.* Let  $a$  be the arc of a circle, and  $x$  the versed

sine; then will  $a = \frac{s dx}{\sqrt{2x-x^2}}$ : and if the

ordinate of the cycloid be  $y$ , then will  $y = \sqrt{2x-x^2} + \frac{s dx}{\sqrt{2x-x^2}}$ , which equation

perfectly expresses the relation between the ordinate  $y$  and the absciss  $x$ ; and from it all the properties of the cycloid may be demonstrated. Thus is the analytical calculus extended to those lines which have hitherto been excluded, for no other cause but that they were thought incapable of it.

Among geometricians transcendental quantities are indeterminate ones; or such as cannot be expressed or fixed to any constant equation. Such is a transcendental curve, or the like. Leibnitz has a dissertation in the *Acta Erud*. Lips. in which he endeavours to show the origin of such quantities; viz. why some problems are neither plain, solid, nor sur-solid, nor of any certain degree, but do transcend all algebraical equations. He also shows how it may be demonstrated, without calculus, that an algebraic quadratrix for the circle or hyperbola is impossible: for, if such a quadratrix could be found, it would follow that, by means of it, any angle, ratio, or logarithm, might be divided in a given proportion of one right line to another, and this by one universal construction; and consequently



the problem of the section of an angle, or the invention of any number of mean proportionals, would be of a certain finite degree. Whereas the different degrees of algebraical equations, and therefore the problem, understood in general of any number of parts of an angle, or mean proportionals, is of an indefinite degree, and transcends all algebraical equations.

**TRANSCOLATE**, *v. a.* Latin *trans* and *colo*. To strain through a sieve or colander; to suffer to pass, as through a strainer.

The lungs are, unless pervious like a sponge, unfit to imbibe and transcolate the air. *Harvey.*

**TRANSCRIBE**, *v. a.* } Fr. *transcrire* ;  
**TRANSCRIBER**, *n. s.* } Lat. *transcribo*. To  
**TRANSCRIPT**, } copy; write from  
**TRANSCRIPTION**, } an exemplar: the  
**TRANSCRIPTIVELY**, *adv.* } derivatives corresponding.

The most rigid exactors of mere outward purity do but transcribe the folly of him who pumps the leak. *Decay of Piety.*

The corruptions that have crept into it by many transcriptions was the cause of so great difference. *Brerewood.*

He was the original of all those inventions, from which others did but transcribe copies. *Clarendon.*

The Grecian learning was but a transcript of the Chaldean and Egyptian; and the Roman of the Grecian. *Glanville.*

Not a few, transcriptively subscribing their names to other men's endeavours, transcribe all they have written. *Browne.*

The decalogue of Moses was but a transcript, not an original. *South's Sermons.*

A coin is in no danger of having its characters altered by copiers and transcribers. *Addison.*

If we imitate their repentance, as we transcribe their faults, we shall be received with the same mercy. *Rogers.*

Writings have been corrupted by little and little, by unskillful transcribers. *Waterland.*

**TRANSCRIPT** denotes particularly a copy of an act or instrument inserted in the body of another.

**TRANSCUR**, *v. n.* } Latin *transcurro*. To  
**TRANSCURSION**, *n. s.* } run or rove to and fro: the noun substantive corresponding.

By fixing the mind on one object, it doth not dissipate and transcur. *Bacon.*

In a great whale, the sense and the affections of any one part of the body instantly make a transcurSION throughout the whole. *Id. Natural History.*

I have briefly run over transcurSIONS, as if my pen had been posting with them. *Wootton's Life of Buckingham.*

**TRANSE**, *n. s.* Fr. *transe*. See **TRANCE**. A temporary absence of the soul; an ecstasy.

Abstract as in a transe, methought I saw, Though sleeping, where I lay, and saw the shape Still glorious before whom awake I stood. *Milton.*

**TRANSELEMENTATION**, *n. s.* Trans and element. Change of one element into another.

Rain we allow; but if they suppose any other transelementation, it neither agrees with Moses's philosophy nor St. Peter's.

*Burnet's Theory of the Earth.*

**TRANSEXION**, *n. s.* Lat. *trans* and *sexus*. Change from one sex to another.

It much impeacheth the iterated transexion of hares, if that be true which some physicians affirm, that

transmutation of sexes was only so in opinion, and that those transfeminated persons were really men at first. *Browne's Vulgar Errors.*

**TRANSFER**, *v. a.* Fr. *transferer*; Lat. *trans-fero*. To convey; make over from one to another; remove; transport; taking both to and upon.

He that transfers the laws of the Lacedemonians to the people of Athens, should find a great absurdity and inconvenience. *Spenser's State of Ireland.*

Was 't not enough you took my crown away, But cruelly you must my love betray? I was well pleased to have transferred my right, And better changed your claim of lawless might. *Dryden.*

This was one perverse effect of their sitting at ease under their vines and fig-trees, that they forgot from whence that ease came, and transferred all the honour of it upon themselves. *Atterbury's Sermons.*

By reading we learn not only the actions and the sentiments of distant nations, but transfer to ourselves the knowledge and improvements of the most learned men. *Watts.*

**TRANSFIGURE**, *v. a.* } Fr. *transfigurer*;  
**TRANSFIGURATION**, *n. s.* } Latin *trans* and *figura*. To change form or appearance: change of form.

In kinds where the discrimination of sexes is obscure, these transformations are more common, and in some without crmmixture; as in caterpillars or silkworms, wherein there is a visible and triple transfiguration. *Browne's Vulgar Errors.*

I am the more zealous to transfigure your love into devotion, because I have observed your passion to have been extremely impatient of confinement. *Boyle.*

The nuptial right his outrage strait attends, The dower desired is his transfigured friends: The incantation backward she repeats, Inverts her rod, and what she did defeats. *Garth.*

**TRANSFIX**, *v. a.* Lat. *transfixus*. To pierce through.

Amongst these mighty men were women mixed; The bold Semiramis, whose sides transfix'd With son's own blade, her foul reproaches spoke. *Spenser.*

With linked thunderbolts Transfix us to the bottom of this gulph. *Milton's Paradise Lost.*

Diana's dart In an unhappy chace transfix'd her heart. *Dryden's Homer.*

Till fate shall with a single dart Transfix the pair it cannot part. *Fenton.*

**TRANSFORM**, *v. a. & v. n.* } Fr. *transformer*;  
**TRANSFORMATION**, *n. s.* } mer; Latin *trans* and *forma*. To metamorphose; change with regard to external form: the noun substantive corresponding.

She demanded of him, whether the goddess of those woods had such a power to transform every body. *Sidney.*

Love is blind, and lovers cannot see The pretty follies that themselves commit; For if they could Cupid himself would blush To see me thus transformed to a boy. *Shakspeare.*

Something you have heard Of Hamlet's transformation; so I call it, Since not the exterior, nor the inward man, Resembles that it was. *Id. Hamlet.*

As is the fable of the lady fair, Which for her lust was turn'd into a cow;

When thirsty to a stream she did repair,  
And saw herself transformed she wist not how.

Davies.

His hair transforms to down, his fingers meet  
In skinny films, and shape his oary feet.

Addison.

The mensuration of all manner of curves, and their mutual transformation, are not worth the labour of those who design either of the three learned professions.

Watts.

TRANSFORMATION, in geometry, is the changing or reducing of a figure, or of a body, into another of the same area, or of the same solidity, but of a different form. As to transform or reduce a triangle to a square, or a pyramid to a parallelopipedon.

TRANSFORMATION OF EQUATIONS, in algebra, is the changing equations into others of a different form, but of equal value. This operation is often necessary to prepare equations for a more easy solution.

TRANSFRETATION, *n. s.* Lat. *trans* and *fretum*. Passage over the sea.

Since the last transfretation of king Richard the Second, the crown of England never sent over numbers of men sufficient to defend the small territory.

Davies on Ireland.

TRANSFUSE', *v. a.* } Lat. *transfusus*. To  
TRANSFUSION, *n. s.* } pour out of one into another: the noun substantive corresponding.

Poesy is of so subtle a spirit, that in the pouring out of one language into another it will all evaporate; and, if a new spirit be not added in the transfusion, there will remain nothing but a caput mortuum.

Denham.

The crooked part of the pipe was placed in a box, to prevent the loss of the quicksilver that might fall aside in the transfusion from the vessel into the pipe.

Boyle.

Something must be lost in all transfusion, that is, in all translations, but the sense will remain.

Dryden.

Where the juices are in a morbid state, if one could suppose all the unsound juices taken away and sound juices immediately transfused, the sound juices would grow morbid.

Arbuthnot.

What noise have we had about transplantation of diseases, and transfusion of blood!

Baker on Learning.

TRANSFUSION OF BLOOD, an operation by which the blood of one animal was conveyed into the veins of another, and by which it was some time ago imagined the age of animals would be renewed, and immortality, or the next thing to it, conferred on those who had undergone it. In the Philosophical Transactions we have an account of the success of various transfusions practised at London, Paris, Italy, &c. Sir Edmund King transfused forty-nine ounces of blood out of a calf into a sheep; the sheep, after the operation, appearing as well and as strong as before. M. Denis transfused the blood of three calves into three dogs, which all continued brisk, and eat as well as before. The same person transfused the blood of four wethers into a horse twenty-six years old, which thence received much strength, and a more than ordinary appetite. Soon after this operation was introduced at Paris, viz. in 1667 and 1668, M. Denis performed it on five human subjects, two of whom recovered of disorders under which they labored; one being in perfect health, suffered

no inconvenience from it; and two persons who were ill, and submitted to the operation, died; in consequence of which the magistrates issued a sentence, prohibiting the transfusion on human bodies under pain of imprisonment. Mr. John Hunter made many ingenious experiments to determine the effects of transfusing blood, some of which are sufficient to attract attention. But whether such experiments can ever be made with safety on the human body is a point not easily determined. They might be allowed in desperate cases, proceeding from a corruption of the blood, from poison, &c., as in hydrophobia.

TRANSGRESS', *v. a.* & *v. n.* } Fr. *trans-*  
TRANSGRESSION, *n. s.* } gresser; Lat.  
TRANSGRESSIVE, *adj.* } *transgressus*.  
TRANSGRESS'OR. } To pass over;  
pass beyond; violate: offend by violating a law; the adjective and noun substantives corresponding.

Achan transgressed in the thing accursed.

1 Chron. ii. 7.

He upbraideth us with our offending the law, and objecteth to our infamy the transgressings of our education.

Wisdom.

Let no man doubt but that every thing is well done, because the world is ruled by so good a guide as transgresseth not his own law, than which no thing can be more absolute, perfect, and just.

Hooker.

I would not marry her, though she were endowed with all Adam had left him before he transgressed.

Shakspeare.

—Wilt thou make a trust a transgression? The transgression is in the stealer.

Id. Much Ado About Nothing.

He intended the discipline of the church should be applied to the greatest and most splendid transgressors, as well as to the punishment of meaner offenders.

Clarendon.

Ill worthy I, such title should belong  
To me transgressor! who, for thee ordained  
A help, became thy snare.

Milton's Paradise Lost.

Shall I abuse this consecrated gift  
Of strength, again returning with my hair  
After my great transgression: so requite  
Favour renewed, and add a greater sin?

Milton.

Long stood the noble youth oppressed with awe,  
And stupid at the wonderous things he saw,  
Surpassing common faith, transgressing nature's law.

Dryden.

All accusation still is founded upon some law; for where there is no law there can be no transgression; and, where there can be no transgression, there ought to be no accusation.

South's Sermons.

TRANSIENT, *adj.* } Lat. *transiens*. Soon  
TRANSIENTLY, *adv.* } past; short; momen-  
TRANSIENTNESS, *n. s.* } tary; not lasting: the  
adverb and noun substantive corresponding.

It were to be wished that all words of this sort, as they resemble the wind in fury and impetuosity, so they might do also in transiency and sudden expiration.

Decay of Piety.

How soon hath thy prediction, scer blest!  
Measured this transient world, the race of time,  
Till time stands fixed.

Milton.

He that rides post through a country, may, from the transient view, tell how in general the parts lie.

Locke.

Love, hitherto a transient guest,  
Ne'er held possession in his breast.

Swift.

TRANSILIENCE, *n. s.* } Latin *transilio*  
TRANSILIENCY. } Leap from thing to thing.



By unadvised transiency leaping from the effect to its remotest cause, we observe not the connection of more immediate causalities. *Glanville's Scepis.*

TRANSIT OF THE PLANETS. See ASTRONOMY.  
TRANSITION, *n. s.* Lat. *transitio*. Removal; passage from one to another.

Heat and cold have a virtual transition without communication of substance, but moisture not.

*Bacon's Natural History.*

He with transition sweet new speech resumes.

*Milton.*

As for the mutation of sexes, and transition into one another, we cannot deny it in hares, it being observable in man.

*Browne's Vulgar Errors.*

Covetousness was none of his faults, but described as a veil over the true meaning of the poet, which was to satirize his prodigality and voluptuousness, to which he makes a transition.

*Dryden.*

TRANSITIVE, *adj.* Lat. *transitivus*. Having the power of passing.

One cause of cold is the contact of cold bodies; for cold is active and transitive into bodies adjacent, as well as heat.

*Bacon's Natural History.*

A verb transitive is that which signifies an action, conceived as having an effect upon some object; as *ferio terram*, I strike the earth.

*Clarke's Latin Grammar.*

TRANSITIVE, in grammar, an epithet applied to such verbs as signify an action which passes from the subject that does it, to or upon another subject that receives it. Under the head of verbs transitive come what we usually call verbs active and passive; other verbs, whose action does not pass out of themselves, are called neuters.

TRANSITORY, *adj.* Fr. *transitoire*; Latin *transitorius*, from *transco*. Continuing but a short time; speedily vanishing.

O Lord, comfort and succour all them who in this transitory life are in trouble.

*Common Prayer.*

Religion prefers those pleasures which flow from the presence of God evermore, infinitely before the transitory pleasures of this world.

*Tillotson's Sermons.*

TRANSLATE', *v. a. & v. n.* } Old French

TRANSLATION, *n. s.* } translator; Lat.

TRANSLATOR, } *translatus*. To

TRANSLATORY, *adj.* } transport; re-

move; transfer from one to another; change; interpret or render in another language; explain: a translation follows all these senses: a translator is one who turns any thing into another language: translatory is transferring.

I will translate the kingdom from the house of Saul, and set up the throne of David.

*2 Sam. iii. 10.*

By faith Enoch was translated, that he should not see death.

*Hebrews xi. 5.*

Since our father is translated unto the gods, our will is, that they that are in our realm live quietly.

*2 Mac. xi. 23.*

Of translations, the better I acknowledge that which cometh nearer to the very letter of the very original verity.

*Hooker.*

Happy is your grace,  
That can translate the stubbornness of fortune  
Into so quiet and so sweet a style.

*Shakespeare. As You Like It.*

If part of the people be somewhat in the election, you cannot make them nulls or cyphers in the privation or translation.

*Bacon's War with Spain.*

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Lucian affirms the souls of usurers, after their death, to be metempsychosed, or translated into the bodies of asses, there to remain for poor men to take their pennyworths out of their bones and sides with the cudgel and spur.

*Peacham.*

The king, the next time the bishop of London came to him, entertained him with this compellation, My lord's grace of Canterbury, you are very welcome; and gave order for all the necessary forms for the translation.

*Clarendon.*

As there are apoplexies from inveterate gouts, the regimen must be to translate the moribific matter upon the extremities of the body.

*Arbuthnot.*

Perverse mankind! whose wills, created free,  
Charge all their woes on absolute decree;  
All to the dooming gods their guilt translate,  
And follies are miscalled the crimes of fate.

*Pope.*

No translation our own country ever yet produced, hath come up to that of the Old and New Testament; and I am persuaded that the translators of the Bible were masters of an English stile much fitter for that work than any we see in our present writings, the which is owing to the simplicity that runs through the whole.

*Swift.*

To go to heaven is to be translated to that kingdom you have longed for; to enjoy the glories of eternity.

*Wake.*

TRANSLATION of a book out of one language into another. The principles of translation have been clearly and accurately laid down by Dr. Campbell in his invaluable Preliminary Dissertations to his excellent translations of the gospels. The fundamental rules which he establishes are three: 1. That the translation should give a complete transcript of the ideas of the original. 2. That the style and manner of the original should be preserved in the translation. 3. That the translation should have all the ease of original composition. The rules deducible from these general laws are explained and illustrated with much judgment and taste, in a late Essay on the Principles of Translation, by Mr. Tytler.

TRANSLOCATION, *n. s.* Latin *trans* and *locus*. Removal of things reciprocally to each other's places.

There happened certain translocations at the deluge, the matter constituting animal and vegetable substances being dissolved, and mineral matter substituted in its place, and thereby like translocation of metals in some springs.

*Woodward.*

TRANSLUCENT, *adj.* } Latin *trans* and

TRANSLUCID. } *lucens*, or *lucidus*.

Transparent; diaphanous; clear; giving a passage to the light.

In anger the spirits ascend and wax eager; which is seen in the eyes, because they are translucid.

*Bacon.*

Wherever fountain or fresh current flowed

Against the eastern ray, translucent, pure,  
With touch æthereal of heaven's fiery rod,

*Milton.*

The golden ewer a maid obsequious brings,  
Replenished from the cool translucid springs.

*Pope's Odyssey.*

TRANSMARINE', *adj.* Latin *transmarinus*. Lying on the other side of the sea; found beyond sea.

She might have made herself mistress of Timaurania, her next transmarine neighbour.

*Howel's Vocal Forest.*

N

**TRANSMEW**, *v. a.* Latin *transmuto*; Fr. *transmuer*. To transmute; to transform; to metamorphose; to change. Obsolete.

When him list the rascal roats appall,  
Men into stones therewith he could *transmew*,  
And stones to dust, and dust to nought at all.

*Spenser.*

**TRANSMIGRANT**, *adj.* } Latin *transmi-*  
**TRANSMIGRATE**, *v. n.* } *grans*. Passing  
**TRANSMIGRATION**, *n. s.* } into another coun-  
try or state: to pass from one country to another:  
the noun substantive corresponding.

Besides an union in sovereignty, or a conjunction  
in pacts, there are other implicit confederations, that  
of colonies or *transmigrants* towards their mother na-  
tion.

*Bacon's Holy War.*

Their souls may *transmigrate* into each other.

*Howell.*

Easing their passage hence, for intercourse  
Of *transmigration*, as their lot shall lead.

*Milton.*

If Pythagoras's transanimation were true, that  
the souls of men *transmigrate* into species answering  
their former natures, some men must live over many  
serpents.

*Browne's Vulgar Errors.*

Regard

The port of Luna, says our learned bard ;

Who, in a drunken dream, beheld his soul

The fifth within the *transmigrating* roll.

*Dryden.*

**TRANSMIGRATION**, in a large sense, is the re-  
moval or translation of a whole people into an-  
other country, by the power of a conqueror.

**TRANSMIGRATION** is particularly used for the  
passage of the soul out of one body into another.  
See **METEMPSYCHOSIS**, **MYTHOLOGY**, and **PYTHA-  
GORAS**.

**TRANSMIT**, *v. a.* } Lat. *transmitto*; Fr.  
**TRANSMISIVE**, *adj.* } *transmettre*. To send  
**TRANSMITTAL**, *n. s.* } from one person or  
place to another: the derivatives both corre-  
spond.

By means of writing, former ages *transmit* the  
memorials of ancient times and things to posterity.

*Hale.*

If there were any such notable *transmission* of a  
colony hither out of Spain, the very chronicles of  
Spain would not have omitted so memorable a thing.

*Spenser on Ireland.*

In the *transmission* of the sea-water into the pits,  
the water riseth ; but, in the *transmission* of the water  
through the vessels, it falleth.

*Bacon.*

Languages of countries are lost by *transmission* of  
colonies of a different language.

*Hale's Origin of Mankind.*

The uvea has a muscular power, and can dilate  
and contract that round hole in it called the pupil,  
for the better moderating the *transmission* of light.

*More.*

He sent orders to his friend in Spain to sell his  
estate, and *transmit* the money to him.

*Addison.*

And still the sire inculcates to his son

*Transmissive* lessons of the king's renown.

*Prior.*

**TRANSMUTE**, *v. n.* } Lat. *transmuto*;  
**TRANSMUTABLE**, *adj.* } Fr. *transmuer*. To  
**TRANSMUTATION**, *n. s.* } change from one na-  
ture or substance to another: the derivatives cor-  
responding.

Am not I old Sly's son, by birth a pedlar, by edu-  
cation a card-maker, by *transmutation* a bear herd ?

*Shakspeare.*

Suidas thinks that by the golden fleece was meant  
a gulden book of parchment, which is of sheep's skin,

and therefore called golden, because it was taught  
therein how other metals might be *transmuted*.

*Raleigh.*

The conversion into a body merely new, and which  
was not before, as silver to gold, or iron to copper,  
is better called, for distinction sake, *transmutation*.

*Bacon.*

It is no easy matter to demonstrate that air is so  
much as convertible into water; how *transmutable* it  
is unto flesh may be of deeper doubt.

*Browne's Vulgar Errors.*

That metals may be *transmuted* one into another, I  
am not satisfied of the fact.

*Ray on the Creation.*

The fluids and solids of an animal body are easily  
*transmutable* into one another.

The supposed change of worms into flies is no real  
*transmutation*; but most of those members, which at  
last become visible to the eye, are existent at the be-  
ginning artificially complicated together.

*Bentley's Sermons.*

**TRANSMUTATION OF METALS**, in alchemy, de-  
notes the act of changing imperfect metals into  
gold or silver. This is also called the grand  
operation; and they say it is to be effected by  
the philosopher's stone. Alchemists suppose  
that all metals are composed of the same prin-  
ciples; and that the imperfect metals do not  
differ from gold and silver, but because their  
principles are not so well combined, or because  
they contain heterogeneous matters. We have  
then only these two faults to remedy, which, as  
they say, may be done by proper coction, and by  
separating the pure from the impure. But we  
would advise those making such experiments to  
determine previously, if metals have each a pe-  
culiar earth, or only one common to them all.  
In the second place, if it should be demonstrated  
that the earthy principle is the same in all  
metals, and if that be demonstrated as clearly as  
the identity of the inflammable principle in  
metals, they must then determine whether these  
two be the only principles in metals, whether  
the mercurial principle exists, and whether it be  
essential to all metals or to some only, and what  
is the proportion of these two or three principles  
in the several metallic substances. These facts  
must be ascertained previous to asserting the  
possibility of *transmutation*.

**TRANSOM**, among builders, denotes the piece  
that is framed across a double light window.

**TRANSOMS**, in a ship, certain beams or timbers  
extended across the sternpost of a ship, to fortify  
her afterpart, and give it the figure most suitable  
to the service for which she is calculated. See  
**SHIP-BUILDING**.

**TRANSPARENT**, *adj.* } Fr. *transparent*;  
**TRANSPARENCY**, *n. s.* } Lat. *trans* and *appari-  
reo*. Pervious to the light; clear; pellucid:  
the noun substantive corresponds.

Nor shines the silver moon one half so bright,

Through the *transparent* bosom of the deep,

As doth thy face through tears of mine give light:  
Thou shin'st in every tear that I do weep.

*Shakspeare.*

Each thought was visible that rolled within,  
As through a crystal case the figured hours are seen ;  
And heaven did this *transparent* veil provide,  
Because she had no guilty thought to hide.

Her bosom appeared all of chrystal, and so won-  
derfully *transparent* that I saw every thought in her  
heart.

*Addison.*



Another cause is the greater transparency of the vessels, occasioned by the thinness and delicacy of their coats. *Arbuthnot.*

**TRANSPICUOUS**, *adj.* Lat. *trans* and *specio*. Transparent; pervious to the sight.

What if that light,  
Sent from her through the wide *transpicuous* air,  
To the terrestrial moon be as a star? *Milton.*

Now thy wine's *transpicuous*, purged from all  
Its earthy gross, yet let it feed awhile  
On the fat refuse. *Phillips.*

**TRANSPIERCE**, *v. n.* Fr. *transpercer*; *trans* and *pierce*. To penetrate; make way through; permeate.

A mind, which through each part infused doth pass,  
Fashions and works, and wholly doth *transpierce*  
All this great body of the universe. *Raleigh.*

**TRANSPARATION**, *n. s.* } Fr. *transpira-*  
**TRANSPIRE**, *v. n.* } *tion*. Emission  
in vapor or otherwise: to be emitted; to escape from secrecy into notice.

That a bullet dipped in oil, by preventing the *transpiration* of air, will carry farther, and pierce deeper, my experience cannot discern.

*Browne's Vulgar Errours.*  
The nuts fresh got are full of a soft pulpy matter,  
which in time *transpires* and passes through the shell.  
*Woodward.*

The *transpiration* of the obstructed fluids is imagined to be one of the ways that an inflammation is removed. *Sharp.*

**TRANSPPLACE**, *v. a.* *Trans* and *place*. To remove; put into a new place.

It was *transplaced* from the left side of the Vatican unto a more eminent place.

*Wilkins's Mathematical Magick.*

**TRANSPLANT**, *v. a.* } Lat. *trans* and  
**TRANSPLANTATION**, *n. s.* } *planto*; Fr. *trans-*  
*planter*. To remove and plant, or settle, in a new place: the noun substantive corresponding.

If any *transplant* themselves into plantations abroad, who are schismatics or outlaws, such are not fit to lay the foundation of a new colony.

*Bacon's Advice to Villiers.*

He prospered at the rate of his own wishes, being *transplanted* out of his cold barren diocese of Saint David's into a warmer climate. *Clarendon.*

Of light the greater part he took  
*Transplanted* from her cloudy shrine, and placed  
In the sun's orb. *Milton.*

The noblest fruits *transplanted* in our isle,  
With early hope and fragrant blossoms smile.  
*Roscommon.*

Salopian acres flourish with a growth  
Peculiar, stiled the *Outley*; be thou first  
This apple to *transplant*. *Phillips.*

This appears a replication to what Menelaus had offered concerning the *transplantation* of Ulysses to Sparta. *Broom.*

What noise have we had for some years about *transplantation* of diseases, and transfusion of blood!

*Baker.*

**TRANSPORT**, *v. a.* } Lat. *trans* and *porto*;  
**TRANSPORT**, *n. s.* } Fr. *transporter*. To  
**TRANSPORTANCE**, } convey by carriage from  
**TRANSPORTATION**, } place to place: hence to  
**TRANSPORTER**, } carry into banishment;

to hurry by violence of passion; put in ecstasy as a noun substantive, conveyance from place to place; vessel of conveyance; rapture;

ecstasy; felon sentenced to be transported: the two noun substantives following correspond.

I came hither to *transport* the tiding. *Shakspeare.*  
O, be thou my Charon,

And give me swift *transportance* to those fields,  
Where I may wallow in the lily beds  
Proposed for the deserver! *Id. Troilus and Cressida.*

Cottingen and Porter had been sent before to provide a vessel for their *transportation*. *Wotton.*

The pilchard merchant may reap a speedy benefit by dispatching, saving, and selling to the *transporters*.

*Carew.*

Those on whom Christ bestowed miraculous cures were so *transported* with them, that their gratitude supplanted their obedience. *Decay of Piety.*

They laugh as if *transported* with some fit  
Of passion. *Milton.*

I shew him once *transported* by the violence of a sudden passion. *Dryden.*

Nor dares his *transport* vessel cross the waves,  
With such whose bones are not composed in graves. *Id.*

Some were not so solicitous to provide against the plague, as to know whether we had it from the malignity of our own air, or by *transportation*. *Id.*

A truly pious mind receives a temporal blessing with gratitude, a spiritual one with ecstasy and *transport*. *South.*

Some spoke of the men of war only, and others added the *transport*. *Arbuthnot on Coins.*

We return after being *transported*, and are ten times greater rogues than before. *Swift.*

**TRANSPPOSE**, *v. a.* } Fr. *transposer*; Lat.  
**TRANSPPOSITION**, *n. s.* } *transpositum*. To put each in the place of other; hence put out of place: the noun substantive corresponding.

That which you are my thoughts cannot *transpose*;  
Angels are bright still, though the brightest fell.

*Shakspeare.*

The letters of Elizabetha regina *transposed* thus,  
Angliæ Hera, beasti, signify, O England's sovereign!  
thou hast made us happy. *Camden's Remains.*

*Transpose* the propositions, making the medius terminus the predicate of the first, and the subject of the second. *Loche.*

**TRANSPPOSITION**, in grammar, a disturbing or dislocating the words of a sentence, or a changing their natural order of construction, to please the ear by rendering the contexture more smooth, easy, and harmonious.

**TRANSSHAPE**, *v. a.* *Trans* and *shape*. To transform; to bring into another shape.

Said I, he hath the tongues; that I believe, said she; for he swore a thing to me on Monday night, which he forswore on Tuesday morning; there's a double tongue: thus did she *transshape* thy particular virtues. *Shakspeare. Much Ado About Nothing.*

**TRANS-TIBERINA**, a part of the city of Rome, on the farther side of the Tiber. Mount Vatican was in that part of the city.—Mart. 1. ep. 109.

**TRANSUBSTANTIATE**, *v. a.* } Fr. *tran-*  
**TRANSUBSTANTIATION**, *n. s.* } *substantier*.  
To change to another substance: the act of doing so; the dogma of the church of Rome, or a change of this kind after the consecration of the eucharist.

O self-traitor, I do bring  
The spider love, which *transubstantiates* all,  
And can convert manna to gall. *Donne.*

Nor seemingly, but with keen dispatch  
Of real hunger, and concocive heat  
To *transubstantiate*; what redounds, transpires  
Through spirits with ease. *Milton.*

TRANSUBSTANTIATION, in theology, is the supposed conversion or change of the substance of the bread and wine, in the eucharist, into the body and blood of Jesus Christ; which the Romish church suppose to be wrought by the consecration of the priest. It is known to all our readers that this doctrine of transubstantiation was one cause of the breach between the church of Rome and those various societies which call themselves reformed churches. The notion of a real and substantial change of the bread and wine into the body and blood of our Lord is rejected by every reformer as a change contradictory and impossible, and fraught with the most unscriptural, not to say idolatrous, consequences; and volumes have been written by protestants to expose the weakness of those arguments which have so often been urged in its support.

TRANSUDE, *v. n.* } *Lat. trans and sudo.*

TRANSDUCTION, *n. s.* } To pass through in vapor: the act of doing so.

Purulent fumes cannot be transmitted throughout the body before the maturation of an aposthem, nor after, unless the humour break; because they cannot *transude* through the bag of an aposthem.

*Harvey on Consumption.*

The drops proceeded not from the *transudation* of the liquors within the glass. *Boyle.*

TRANSVERSALIS, in anatomy, a name given to several muscles. See ANATOMY.

TRANSVERSE, *adj.* & *v. a.* } *Lat. trans-*

TRANSVERSAL, *adj.* } *versus.* Being

TRANSVERSALLY, *adv.* } in a cross di-

TRANSVERSELY, *adv.* } rection: to

change; overturn: transversal is running crosswise: the adverb corresponding, and transversely with transverse.

Nothing can be believed to be religion by any people but what they think to be divine; that is, sent immediately from God: and they can think nothing to be so that is in the power of man to alter or *transverse*. *Lesey.*

There are divers subtle enquiries and demonstrations concerning the several proportions of swiftness and distance in an arrow shot vertically, horizontally, or *transversally*. *Wilkins.*

His violent touch

Fled and pursued *transverse* the resonant fugue.

*Milton.*

At Stonehenge the stones lie *transversely* upon each other. *Stillingfleet.*

In all the fibres of an animal there is a contractile power; for, if a fibre be cut *transversely*, both the ends shrink, and make the wound gape.

*Arbuthnot on Aliments.*

TRANSVERSE denotes something that goes across another from corner to corner: thus bends and bars in heraldry are transverse pieces or bearings; the diagonals of a parallelogram or a square are transverse lines.

TRANSYLVANIA, an important province of the Austrian empire, bounded by Hungary north and west, and European Turkey east and south, lies between 22° 46' and 26° 3' of E. long. and between 45° 33' and 47° 37' of N. lat. Its form is oblong: its territorial extent about 23,700 square miles; and population upwards of

1,600,000. It has, like Hungary, its civil and military divisions: the former consisting of three large districts or provinces, called, from the early settlers, the lands of the Hungarians, the Saxons, and the Szeklers. The land of the Hungarians was divided into counties, and the others into districts, called in Latin *Sedes*. Joseph II. abolished this distinction, and introduced that of the three circles of Hermanstadt, Fogaras, and Clauseburg. The old division has been restored since his death. The chief towns are Cronstadt, Clausenburg (the capital), Hermanstadt, Maros Vasarhely, Vasarhely, Udvarhely, and Schœsburg.

The Carpathians surround Transylvania on the east, the south, and partly on the north; and the greatest part of it consists of alternate mountains and valleys. Many of these contain a number of caverns, presenting a wide field of examination for the botanist and geologist, but are often of appalling height and steepness. The south presents hills of little elevation, intermixed with plains, interrupted by marshes and small lakes. These eminences are commonly covered with vineyards; the higher elevations with forests; but almost all contain mines. The principal rivers of Transylvania are the Maros, the Samos, and the Aluta; and the Aranyos, the Lapos, the Sajo, and the two Kokels, of inferior size. All these have their source within the country, and their direction is in general from east to west. The lakes, like those of Switzerland, Scotland, and other countries where the water is enclosed by mountains, are of great depth. The climate of Transylvania is cold, although in summer the valleys are hot, but subject to sudden changes, and to great cold at night. On the whole, this province is healthy, though not unfrequently visited by the plague. In the mountains are found marble, jasper, porphyry, slate, lime-stone, coal, sulphur, petroleum, and rock salt. The number of salt works, great and small, is about 112; the quantity of salt produced from 30,000 to 40,000 tons a year. This country has also mines of iron, copper, lead, silver, and even gold, though the quantity wrought of any of these metals appears comparatively small. That of iron is from 3000 to 4000 tons annually; but that of copper and lead is each below 200 tons. In the mountains are dug up occasionally precious stones, such as topazes, chrysolites, garnets, opals, &c., and mineral springs are frequent.

This country was formerly covered with forests, and the culture of the principality bears great marks of backwardness. The soil is in general well adapted to improvement; but so averse are the habits of a part of the population (the Hungarians and Szeklers) from tillage, and so antiquated in the practice, that many good tracts remain neglected, and the traveller proceeds mile after mile without meeting a habitation or a tree. Wheat, oats, barley, and other corn of our climate, succeed in Transylvania; but for maize or vines there is hardly sufficient heat. Orchards are not neglected; and potatoes have of late been brought into cultivation; but hay and all artificial grasses are unknown; the cattle having none but natural herbage. The



horses, though small, are spirited; the oxen are reckoned equal to those of Hungary; and of both these an annual export takes place. Buffaloes are frequently used for labor. The sheep are numerous; and, in the last and present age, attempts have been made to improve the wool, by the introduction of Merinos, as well as by sending flocks to pass the winter in Walachia and Moldavia. The mountains and forests abound in game of all kinds; in bears, wolves, eagles, and vultures; in the lower grounds, tortoises, lizards, and snakes appear.

Woollens are wrought at particular places, such as Cronstadt and Hermanstadt; and fabrics of cotton have been established: the blue stuff used in the dress of women, and formerly brought from Turkey, is now made at home, and hats, of coarse quality, are manufactured; as to glass, Transylvania is now no longer dependent on Bohemia. The exports of the country are timber, metals, and a few of the manufactures mentioned: the imports, wool, cotton, skins, and a variety of manufactured articles. Here are no canals, and hardly any navigable rivers. A few great roads have been of late finished at the public expense. The only merchants in the country are Greeks and Armenians.

The Szeklers occupy the mountains, and have been from time immemorial the guardians of the frontiers: they bear a considerable resemblance to the Highlanders of Scotland. Settlers from Germany were first introduced in the middle of the twelfth century, having been brought originally from Flanders and the south of Germany, and being subsequently reinforced by Protestant emigrants from the Austrian states. The name of Saxon is given to them merely because in a remote age all Germans were styled Saxons by their neighbours. They are in general careful and industrious. Their habitations are neater than those of the rude tribes around them. The language they speak is a dialect of German. These three nations possess the chief political privileges; in particular that of sitting at the national diet. But in point of number they are greatly surpassed by the descendants of the Walachians, who form half the population of the principality. Like the Slovacs in Hungary, or the Irish peasantry, the Walachian cottagers find, in the midst of filth and poverty, the means of rearing families. They are employed chiefly as common laborers, as shepherds, or as wagoners. The arrival of their ancestors in this country took place about four centuries ago. Exclusive of these are several minor tribes in Transylvania; Bulgarians, who are less ignorant than the Walachians; Servians, whose arrival in the principality dates from the fifteenth century, and who in religion are Lutherans or Calvinists; and Poles, inhabiting the districts of Clausenburg, whose forefathers settled there in the seventeenth century, being Unitarians, and obliged on that account to leave Poland. Here are also Bohemian sectaries, chiefly Hernhutters or Anabaptists; Armenians, noted for their frugality and mercantile habits; Greeks, who are also merchants, but who live in a somewhat more liberal style. Last come the gypsies, part of whom are, as in other countries, beggars and fortune tellers;

while others have a fixed residence, and are employed in tillage or in the rearing of cattle. The languages of Transylvania are chiefly German and Walachian; the latter Latin with a mixture of German and Slavonic: the Magyars speak Hungarian: on the part of government the official language is Latin, but orders are issued also in Hungarian and German.

The followers of the Greek church, comprising the Walachians, Greeks, Bulgarians, and even Gypsies, are by far the most numerous. Next come the Catholics, among whom are ranked the Hungarians and most of the Szeklers. The Catholics, the Protestants, and Unitarians, are the sects possessing political privileges; for the Greek and the other creeds are only tolerated. The relative numbers are computed as follows:—

|              |         |
|--------------|---------|
| Greek church | 917,000 |
| Catholics    | 340,000 |
| Calvinists   | 190,000 |
| Lutherans    | 158,000 |
| Unitarians   | 45,000  |
| Jews         | 2,000   |

Education has as yet made little progress; but there has been established at Clausenburg an academy, on a plan somewhat similar to the German universities: the large or central schools throughout the principality are only eight in number; the gymnasia or grammar schools only seven. Here, as in Hungary, there are village schools appropriated to the different sects; and at the town of Balasfulva the Greeks have a gymnasium, where the pupils are instructed at the public expense. The Greeks have also two central schools. Printing and book-selling are carried on here to a very limited extent; and the whole country can boast only of three great public libraries.

Transylvania bears the title of a grand principality of the Austrian empire, and has an executive administration in the hands of the governor and twelve counsellors, forming conjunctly a council of state, corresponding with the Aulic chancery at Vienna. Subordinate to these are the district governors, corresponding to the prefects in France, and in some measure to our lords lieutenant. Justice is administered by courts stationed permanently in particular towns: appeals are allowed to the governor and council of state for the province. The military force consists of two regiments of foot, two of cavalry, and one of Szekler hussars, exclusively of four militia regiments on the frontier. The commander-in-chief resides at Hermanstadt. The revenue of the province, about £500,000, arises from custom duties, on a per centage on the produce of the mines, the monopoly of salt, the demesnes of the crown, and local imposts.

This principality was known to the Romans by the title of Dacia Consularis Mediterranea, and conquered by Trajan, who settled a colony here. On the irruption of the northern hordes, it became subject successively to the Goths, the Huns, the Alans, the Sclavi, the Avari, and finally to the Magyars. During some time it was ruled by a prince of its own, but it fell under the power of the kings of Hungary, and was governed by a deputy, having the title of prince,

or waiwode, a title commonly translated palatine. In 1541 Transylvania was separated from Hungary, and remained an independent province till 1699, when its last prince gave it up to Austria. The name of Transylvania is derived from the Hungarians, who called the woody country to the east of the Theys, Silagy, or Sylvania, and the territory to the east of these woods Terra ultra Sylvas partes Transylvanæ, or Transylvanenses. Erdely, the name given to this country, in common Hungarian, has the same signification.

TRAP, *v. a.* From TRAPPING. To adorn; decorate.

The steed that bore him  
Was trapped with polished steel, all shining bright,  
And covered with the achievements of the knight.

Lord Lucius presented to you four milk-white  
horses *trapt* in silver. *Shakespeare. Timon of Athens.*  
Steeds with scarlet *trapped*. *Cowley.*

TRAP, *n. s. & v. a.* } Sax. *trappe*; French  
TRAPDOOR, *n. s.* } *trape*; Ital. *trappola*. A  
snare or ambush; stratagem; a play with ball  
and stick: to ensnare; a door opening and shut-  
ting unexpectedly.

And lurking closely, in await now lay,  
How he might any in his *trap* betray. *Spenser.*  
My brain, more busy than the labouring spider,  
Weaves tedious snares to *trap* mine enemies.

Die as thou shouldest, but do not die impatiently,  
and like a fox caught in a *trap*. *Shakespeare.*

He seems a *trap* for charity to lay,  
And cons by night his lesson for the day. *Dryden.*  
The *trap* springs, and catches the ape by the fingers.  
*L'Estrange.*

Unruly boys learn to wrangle at *trap*, or rook at  
span-farthing. *Locke on Education.*

The arteries which carry from the heart to the several  
parts have valves which open outward like *trap-*  
*doors*, and give the blood a free passage. *Ray.*

He that of feeble nerves and joints complains,  
From nine-pins, coits, and from *trap-ball* abstains.  
*King.*

TRAPA, in botany, water caltrops, a genus  
of plants in the class tetrandria, and in the  
order of monogynia; ranking, according to the  
natural method, in the order which Linnæus left  
doubtful.

TRAPANI, the ancient Drepanum, a well  
built town of Sicily, in the Val di Mazzara, situated  
on a tongue of land projecting into the sea,  
and forming a large and commodious harbour.  
It is a place of importance, both as a naval,  
military, and commercial position. Its numerous  
churches, convents, and other public buildings,  
are in a style of considerable elegance. The harbour  
is good, and was an object of importance at so  
remote a period as the first and second Punic wars.  
It is capable of receiving vessels of 300 tons close  
to the quay. Trapani, possessed of these advantages,  
has long been one of the most commercial towns in  
Sicily. Its exports consist chiefly of salt, soda, coral,  
and alabaster. Population 20,000.

TRAPES, *n. s.* From TRAPE. An idle  
slatternly woman.

From door to door I'd sooner whine and beg,  
Than marry such a *trapes*.

*Gay's What d' Ye Call It.*

TRAPEZIUM, *n. s.* Gr. *τραπέζιον*; Fr.  
*trapeze*. A quadrilateral figure, whose four  
sides are not equal, and none of its sides parallel.

Two of the lateral *trapezia* are as broad.

*Woodward.*

TRAPEZUNTIUS (George), a learned author,  
born in Crete, about 1306. He was one of those  
learned men, to whom we are indebted for the  
revival of science in Europe; by introducing the  
knowledge of the Greek language into the West.  
He translated many of the Greek authors into Latin;  
and was also author of several works of his own.  
He died at Rome in 1485.

TRAPEZUS, a city of Pontus, with a harbour  
on the Euxine Sea, built by the people of Sinope.  
It became famous under the emperors of the East,  
and was for some time their capital. It is now  
called Trebisonde.

TRAPP (Dr. Joseph), an English divine, born  
at Cherington in Gloucestershire, where his father  
was rector in 1579. He was the first person chosen  
to the professorship of poetry founded at Oxford  
by Dr. Birkhead; and published his lectures under  
the title of *Praelectiones Poeticæ*. He obtained the  
living of Christ-church in Newgate Street, and St.  
Leonard's Fosterlane, London; but his very high-  
church principles obstructed his farther preferment.  
He published several occasional poems, a tragedy  
called *Abramule*, translated Milton's *Paradise Lost*  
into Latin verse, and died in 1747. Also a Preservative  
against Unsettled notions, in several sermons.

TRAPP, in mineralogy, the obsolete name of a  
species of silica. It was the lapis Lydius, or  
touchstone of the ancients. See MINERALOGY.

TRAPPE, a celebrated monastery of France,  
in the department of Orne, seated in a large valley  
surrounded by mountains. The monks were famed  
in the days of superstition for their austerity; and  
keeping a perpetual silence!

TRAPPINGS, *n. s.* Fr. *drap*, cloth.—Minshien.  
Ornaments appendant to a saddle; dress; embellishments.

These indeed seem,  
But I have that within which passeth shew;  
These but the *trappings* and the suits of woe.

*Shakespeare*

Caparisons and steeds,  
Bases and tinsel *trappings*, gorgeous knights  
At joust and tournament. *Milton.*

The points of honour poets may produce,  
*Trappings* of life, for ornament, not use. *Dryden.*

He has fair words, rich *trappings*, and large promises;  
but works only for his master. *L'Estrange.*

TRASH, *n. s. & v. a.* } Swed. *trasa*; Isld.  
TRASHY, *adj.* } *tros*. Any thing  
worthless; dross; dregs; a worthless person:  
to crop; to top; humble: trashy is vile; worthless.

Lay hands upon these traitors and their *trash*.  
*Shakespeare.*

Being once perfected how to grant suits,  
How to deny them; whom t' advance, and whom  
To *trash* for overtopping. *Id. Tempest.*

I suspect this *trash*  
To be a party in this injury. *Id. Othello.*



More than ten Hollensheds, or Halls, or Stows,  
Of trivial household *trash* he knows; he knows  
When the queen frowned or smiled. *Donne.*

A judicious reader will discover in his closet that  
*trashy* stuff, whose glittering deceived him in the ac-  
tion. *Dryden.*

O that instead of *trash* thou 'dst taken steel.

*Garth.*

Weak foolish man! will heaven reward us there  
With the same *trash* mad mortals wish for here?

*Pope.*

TRA'VAIL, *v. n. & n. s.* Fr. *travailler*. To  
labor: toil; be in labor; suffer the pains of  
childbirth; to harass; tire; labor; toil; ex-  
treme fatigue: the labor of childbirth.

In the time of her *travail*, twins were in her.

*Genesis xxxviii.*

Such impotent persons as are unable for strong  
*travail*, are yet able to drive cattle to-and fro to their  
pasture. *Spenser.*

As every thing of price, so this doth require *tra-*  
*vail*. *Hooker.*

To procure easy *travails* of women, the intention  
is to bring down the child, but not too fast.

*Bacon's Natural History.*

As if all these troubled had not been sufficient to  
*travail* the realm, a great division fell among the no-  
bility. *Hayward.*

A gleam of light turned thitherward in haste  
His *travelled* steps. *Milton.*

His heart is in continual labour: it *travails* with  
the obligation, and is in pangs till it be delivered.

*South's Sermons.*

TRAVANCOR, or TIRUVANCOU, a province  
at the south-western extremity of Hindostan, si-  
tuated between 8° and 10° N. lat. To the north  
it is bounded by the territories of the Cochin  
Rajah; on the south and west by the sea; and  
on the east it is separated from Tinnevely by a  
range of lofty hills covered with jungle. In  
length it may be estimated at 140 miles by forty  
the average breadth. The face of the country in  
this province, in the vicinity of the mountains,  
exhibits a varied scene of hill and dale and wind-  
ing streams. These waters flow from the hills,  
and preserve the valleys in perpetual verdure.  
The grandeur of the scene is much enhanced by  
the lofty forests with which the mountains are  
covered, producing pepper, cardamoms, cassia,  
frankincense, and other aromatic gums. In the  
woods at the bottom of the hills are many ele-  
phants, buffaloes, and tigers of the largest size.  
Monkeys and apes are very numerous, and herd  
together in flocks. The agriculture and produc-  
tions well adapted to its more favorable cli-  
mate and superior soil, differ materially from the  
cultivation and crops of the Carnatic. Pepper,  
of which from 5000 to 10,000 candies may be  
produced annually, and valued at 485,000 ru-  
pees. For this valuable article the Travancor  
government only pay the cultivator thirty rupees  
per candy. Betel nut is also monopolised by  
government, which makes advances to the cul-  
tivator and resells it at a great profit. Cocoa-nut  
trees are very numerous.

The timber forests of Travancor are in general  
farmed, the revenue to government varying ac-  
cording to circumstances. Among the other ar-  
ticles of monopoly are ginger, farmed for 25,000  
rupees per annum; coir, 30,000 rupees; turine-

ric 10,000 rupees: and koprah, or dried cocoa-  
nut kernels, 20,000 rupees per annum. Tobacco  
for the consumption of the province is generally  
brought from Ceylon, the average quantity being  
4000 bales, each of which costs the Travancor  
government sixty rupees, and is afterwards resold  
at 220 rupees per bale: 1500 candies of cotton  
are also annually imported from Surat, upon  
which the government levy a duty of forty-five  
rupees per candy. The government receives  
from the purchase of cardamoms 100 rupees upon  
every candy, besides full reimbursement of all  
expenses attending the original advance to the  
cultivator, and the charges of transportation. In  
the interior the Travancor duties are exacted on  
the transit of all articles, and the payment at one  
place scarcely ever exempts the trader from a re-  
petition at another, passes being unknown except  
for some articles that are already farmed. Among  
other commodities produced in the country, and  
taxed by the government, are cassia buds, mace,  
long nutmegs, wild saffron, narwally, coculus in-  
dicus, bees' wax, elephants' teeth, and sandal  
wood. The sea customs of Travancor are farm-  
ed, and realise on an average about one lack of  
rupees per annum.

Besides those above stated, there are various  
other sources of revenue to the Travancor go-  
vernment, such as taxes on Christian festivals,  
and upon nets and fishermen; but the most im-  
portant is a capitation tax on all males from six-  
teen to sixty, with the exception of Nairs, Mop-  
lays, and artificers. This operates as a tax on  
the soil, and compensates to the government the  
light assessment on the grain produce. The  
landholder is bound for all the cultivators on his  
estate, and each person is assessed three fanams.  
The number paying has been estimated at 250,000  
persons. The sum total of all these exactions  
has been conjectured to amount to twenty lacks  
of rupees annually, which is exclusive of the wet  
cultivation as mentioned above, and from the de-  
tail here presented some idea may be formed of  
the fiscal regulations under a genuine Hindoo  
government. Pepper, the great staple of Tra-  
vancor, has fallen so greatly in value as to be al-  
most unsaleable; what formerly brought 220  
rupees per candy has gradually fallen to little  
above sixty rupees. The East India Company  
have in consequence commuted their subsidy,  
which used to be paid in pepper, for one in  
money.

|                             |         |
|-----------------------------|---------|
| The old subsidy amounted to | 381,456 |
| The new subsidy to          | 401,655 |

Rupees 783,111

The principal sea-ports in this province are  
Anjengo, Coulan, Aibacca, and Coleshy. Strong  
currents run along the coast which frequently  
carry ships, bound round Cape Comorin, a con-  
siderable distance to the westward. The rajah's  
usual place of residence is Trivandapatam.

TRA'VEL, *v. n., v. a. & n. s.* } Supposed  
TRA'VELLER, *n. s.* } originally the

TRA'VELTAINTED, *adj.* } same with tra-

vail: to make journeys by sea or land: written  
by Hooker for travail; pass; journey over; a  
journey; act of passing from place to place;  
labor; toil; labor in childbirth (written for tra-

vail): travels is used for an account of events or for observations made in travelling: a traveller is a wayfarer, one who journeys: traveltainted, harassed; fatigued with travel.

In the forest shall ye lodge, O ye travelling companies of Dedanim. *Isaiah xxi. 13.*

A little ease to these my torments give,  
Before I go where all in silence mourn,  
From whose dark shores no travellers return.

*Sandys.*

Farewell, monsieur traveller; look you lisp and wear strange suits, and disable all the benefits of your own country. *Shakspeare.*

Time travels in divers paces with divers persons:  
I'll tell you who time ambles withal, who time trots withal. *Id.*

I have foundered nine score and odd posts; and here, traveltainted as I am, have, in my pure and immaculate valour, taken Sir John Coleville. *Id. Henry IV.*

If we labour to maintain truth and reason, let not any think that we travel about a matter not needful. *Hooker.*

Travel in the younger sort is a part of education; in the elder a part of experience. *Bacon's Essays.*

These travellers for cloaths, or for a meale,  
At all adventurers, any lye will tell. *Chapman.*

He wars with a retiring enemy,  
With much more travail than with victory. *Daniel.*

Thither to arrive,

I travel this profound. *Milton.*

In my travels I had been near their setting out in Thessaly, and at the place of their landing in Carniola. *Brotene's Travels.*

Love had cut him short,  
Confined within the purlieus of his court.  
Three miles he went, nor farther could retreat,  
His travels ended at his country-seat. *Dryden.*

Thy mother well deserves that short delight,  
The nauseous qualms of ten long months and travel to requite. *Id. Virgil.*

They are travellers newly arrived in a strange country, we should therefore not mislead them. *Locke.*

A man not enlightened by travel or reflexion, grows as fond of arbitrary power, to which he hath been used, as of barren countries, in which he has been born and bred. *Addison.*

TRAV'ERS, *adv.*

TRAVE'RS, *adv., prep.*, } French *travers*.  
adj., n. s., v. a. & v. n. } used): traverse is cross-wise; athwart: through crosswise: lying across any thing thus laid or built: any thing that thwarts or crosses: as a verb active, to thwart; oppose; cross; wander over; survey: to use in fencing a particular opposing posture.

He swears brave oaths, and breaks them bravely, quite *travers*, athwart the heart of his lover. *Shakspeare.*

To see thee fight, to see thee *traverse*, to see thee here, to see thee there. *Id. Merry Wives.*

Myself, and such

As stept within the shadow of your power,  
Have wandered with our *travers* arms, and breathed Our sufferance vainly. *Id. Timon of Athens.*

Bring water from some hanging grounds in long furrows; and from those drawing it *traverse* to spread. *Bacon.*

The ridges of the fallow field lay *traverse*. *Hayward.*

This treatise has, since the first conception thereof, been often *traversed* with other thoughts. *Wotton.*

He through the armed files

Darts his experienced eye, and soon *traverse*

The whole battalion views their order due. *Milton.*

A just and lively picture of human nature in its actions, passions, and *traverses* of fortune. *Dryden.*

He sees no defect in himself, but is satisfied that he should have carried on his designs well enough, had it not been for unlucky *traverses* not in his power. *Locke.*

My purpose is to *traverse* the nature, principles and properties, of this detestable vice, ingratitude. *South.*

The lion, smarting with the hunter's spear,  
Though deeply wounded, no way yet dismayed,  
In sullen fury *traverses* the plain,  
To find the vent'rous foe. *Prior.*

What seas you *traversed*, and what fields you fought! *Pope.*

TRAVERSARI (Ambrose), a learned Italian monk, born at Camaldoni, near Florence, in 1386. He acted as interpreter between the Greeks and Italians. His translation of Diogenes Laertius, dedicated to Cosmo de Medicis, has been often printed.

TRAVERSE, in navigation, implies a compound course, or an assemblage of various courses, lying at different angles with the meridian. See NAVIGATION.

TRAVERSE, in gunnery, is the turning a piece of ordnance about, as upon a centre, to make it point in any particular direction.

TRAVERSE, in fortification, denotes a trench with a little parapet, sometimes two, one on each side, to serve as a cover from the enemy, that might come in flank.

TRAVERSE, in a wet foss, is a sort of gallery, made by throwing saucissons, joists fascines, stones, earth, &c., into the foss, opposite the place where the miner is to be put, in order to fill up the ditch, and make a passage over it.

TRAVERSE also denotes a wall of earth, or stone, raised across a work, to stop the shot from rolling along it. It also sometimes signifies any retrenchment of line fortified with fascines, barrels, or bags of earth, or gabions.

TRAVERSE BOARD, in navigation, a thin circular piece of board, marked with all the points of the compass, and having eight holes bored in each, and eight small pegs hanging from the centre of the board. It is used to determine the different courses run by a ship during the period of the watch, and to ascertain the distance of each course.

TRAVERSING, in fencing, is the change of ground made by moving to right or left round the circle of defence.

TRAVERSING PLATFORM, in artillery, is a method of mounting guns, introduced some years back for the defence of the coast, and generally for all sea batteries, as affording greater facility of traversing the gun, so as to follow, without loss of time, any quick moving object on the water. In this system the gun is mounted on a common garrison carriage; but instead of this carriage being placed and working on a fixed platform, as formerly, it works and recoils on a moveable platform; or, as it may be more properly termed, a rail-way moving round a centre in its front on rollers, the axes of which produced would intersect in this centre of



motion; so that this platform, with the carriage and gun upon it, may be traversed with considerable ease in any direction. The length of the skids, or rail-way, on which the upper carriage recoils is sixteen feet, and the hinder part is somewhat higher than the front, so that by running up hill the recoil is reduced, and the facility of running the gun out again much increased.

The late Sir William Congreve brought forward an improvement upon the traversing platform, by which the upper carriage is dispensed with; the necessary height for firing over the parapet being given by the lower carriage, or, as it is called, the platform itself. In this construction the gun recoils on trucks which work upon its trunnions, and which are allowed to turn as the gun runs out, but are palled by a strong catch concealed in the trunnion, which prevents their turning when the gun recoils; the elevation being regulated by a small cast iron cradle also attached to the trunnions. This construction not only very much reduces the expense of the traversing platform, by saving the upper carriage, but gives much greater ease in working the gun; for by palling the trucks the recoil is diminished, and by getting rid of the weight of the upper carriage the men have little more to move than the gun, instead of having in addition to it a heavy carriage also to run out. There is also a very important advantage attending this improvement, namely, the reduction of vulnerable space for the enemy's shot to strike; for not only is the length of the skids or platform itself reduced, but all the surface of the upper carriage is entirely done away with, at the same time that, by the diminution of the general weight, it is evident that it requires less labor to traverse the platform as well as to fight the gun. This system of mounting guns, by putting the trucks upon the trunnions, and placing those trucks immediately on the skids of the traversing platform, has been offered by Sir William Congreve as being particularly well adapted to the arming of the Martello Towers, which have been deemed too small for the number of guns originally intended, namely, one long gun and two short ones. The diameter of the interior of the top of these towers is twenty-six feet: it occurred to Sir William Congreve that his method of putting the trucks upon the trunnions of the gun brings the gun so near to the skids of the platform, that a platform so constructed might be laid upon the upper surface of the parapet of a martello tower, without exposing more or even so much surface as at present, where the platform is kept within the parapet; for the muzzle of the gun would be no higher in one case than in the other. On this principle, therefore, Sir William Congreve proposed to take four feet all round the tower for the ends of his platform to work upon, which would at once virtually make a tower of twenty-six feet in diameter equal to one of thirty-four feet; that is to say, it actually gives the area of a circle of thirty-four feet diameter for the guns to work in, instead of one of only twenty-six feet; and thus would afford abundant area for the three guns originally intended. But this is not all; for by this plan there is actually less of the space in the area within the parapet occupied by the three improv-

ed traversing platforms than by one on the old construction: the latter completely occupies a space of sixteen feet in length by five in breadth; whereas all the skids of Sir W. Congreve's three platforms, are above the men's heads, so that they may pass freely to and fro in all directions under them, having every where six feet six inches headway; nor is there any part of these platforms that takes up any of the space of the area, except two perpendicular legs of eight inches square to each platform, on which the rear of the platforms is supported. To these advantages are to be added the greater facility, as above explained, of working the gun, and also that the muzzle is by these means thrown forward beyond the parapet, which gives a power of greater depression, and prevents the possibility of accident to the parapet from the explosion of the gun when depressed.

There is another most important improvement in the practice of fortification, which Sir William's traversing platform has given rise to, and which was first matured with the assistance of captain Lefebure of the engineers, and brought before the committee of that corps upwards of two years since: it is the inversion of the embrasures of casemated defences, that is to say, the presenting of the small aperture of the embrasure to the enemy instead of the large one. Thus, in an embrasure of this description, which Sir Wm. Congreve has constructed, he can fight a twenty-four pounder through an aperture only one foot six inches wide, and one foot ten inches high, preserving all the thickness of masonry entire, and allowing the piece a field or scope of 30° with the ordinary power of elevation and depression; to obtain all which on the common principle requires an exterior aperture of six feet high and six feet wide. Now the whole of this depends on the extraordinary compactness of the platform and its piece of ordnance, as mounted by putting trucks on the trunnions of the gun, or on the trunnion bolt of the carronade, and to the greatly increased facility of working either, especially the latter, which the trucks afford; for by these means the gun or carronade, instead of being obliged, as in the common mode, to be worked in the body of the casemate, is here actually worked in the thickness of the wall itself; so that in the carronade, as well as in the gun, the muzzle is actually protruded through the embrasure and is fired in free space: whence result all the following important comparative advantages:—

The common embrasure acts as a widely extended funnel to lead the enemy's shot into the body of the casemate, and is particularly objectionable on this account as to grape shot, and presents a large line of edge to be chipped and ruined by the enemy's shot. In the inverted embrasure the shot, whether round or grape, must strike a space of eighteen inches by two, and twenty inches to enter; a very small quantity of grape shot therefore can take effect, and a proportionably less line of edge is presented to be destroyed by round shot.

In the common embrasure the explosion of firing the gun takes place within the arch, from which not only is the masonry constantly shaken

by firing a few rounds, but the noise and smoke rebound into the body of the casemate greatly to the annoyance of the men. In the inverted embrasure, the muzzle when fired being projected into free space, no accident or jar can possibly happen to the masonry from the explosion: nor does the smoke or the report return into the casemate as above.

Another advantage is, that such an embrasure may be close to the bottom of the ditch without danger of being stormed, and that in fact it requires no prevention against such attack, as when the gun is in its place a man cannot possibly force himself in. Nor does there in fact appear any drawback to these obvious advantages; for the loading and firing goes on with the same rapidity or even greater than in the common mode; the gun or carronade necessarily recoiling, when fired, far enough to be loaded with perfect ease, and allowing, by the application of the trucks as already explained, of being run out again with even greater facility than by any other construction hitherto devised; inasmuch that the heavier the nature of ordnance the greater is the comparative advantage.

Sir William Congreve has applied this same principle of gun and carronade carriage very successfully to naval purposes, several ships having already been armed on his plan. The following are the advantages proposed by it on ship board. 1st, Sir William Congreve has contrived, in the application of the principles of his traversing platform to the sea service, to give all the advantages of quick pointing, and of the diminution of labor in a space not exceeding that occupied by the common gun carriage, inasmuch that the heavy guns in a line-of-battle ship will not require more than half the ordinary number of men to fight them, without taking up more room than is now required for the common carriage. 2dly, A gun mounted on this principle will recoil much more smoothly, and without jumping as the common gun carriage does when fired; not only because it is confined to the port sill and cannot rise, but because the plane on which it recoils is so much nearer the axis of the piece; for, as Sir William Congreve has demonstrated, the jumping of the common carriage is owing to the height of the gun above the plane of the deck on which it recoils; this height acting as a lever to tip the carriage over backwards when the gun is fired, and so producing a double motion in the recoil, first raising the fore trucks and then the hind ones off the deck; all which he proves to be obviated by putting the trucks on which the gun recoils on its own trunnions, and thereby getting rid of the lever which produces the mischief. 3dly, The actual weight of the sea service gun carriage is reduced by this mode of mounting ship guns. 4thly, The new carriage presents considerably less vulnerable surface than the common carriage, and consequently less is to be feared from splinters; nor has the new carriage the same liability to rot the decks, as the air circulates freely underneath it, instead of its causing a continual dampness as is the case with the present carriage; seamen will feel the force of this property. 5thly, By this construction the muzzle of a short gun may be run out as far as

that of the long gun can be with the common carriage. 6thly, This carriage allows of very greatly more training than a common carriage, owing to the comparative difference of breadth and to its working on a fixed centre; thus it may be traversed 90°. This is a most important point gained; and yet, 7thly, it does not require, to give this power of training, a port so wide as the common port by nine inches of a side, which is obviously of great consequence both to the strength of the ship and the security of the men at the guns against musquetry and grape shot. 8thly, The span of this carriage is so much less than that of the common carriage that four of them, if required, might be put in the space of three common carriages, leaving the same intervals, yet it cannot be overset as it works on a fixed centre. 9thly, This carriage may be housed fore and aft so as not to take up more than two feet from the breadth of the deck, or in bad weather it may be secured athwart ship without occupying more room than the common carriage. It is however capable of better security, and may be housed so as to take off all strain whatever from the side of the ship, and to prevent the possibility of its stirring, as it allows of direct lashings to ring bolts on the deck, which the common carriage will not any how admit of, and must therefore always have some motion in a gale of wind. Lastly, Notwithstanding all these points, which would appear to be the result of a complicated machine, the construction of this carriage is so simple that it is actually easier repaired at sea than a common carriage, and is even less perishable: in fine, it requires nothing but common square scantling and the work of any ship carpenter. Sir William Congreve has published an account of this important improvement in mounting heavy artillery, with a series of plates explanatory of the different modes of construction and advantages, and we understand that he has a patent for the invention.

**TRAVESTRY**, in literature, a name given to a humorous translation of any author.

**TRAVIS** (George), M. A. a learned English divine, born at Royton, in Lancashire; educated at Manchester, and St. John's College, Cambridge. He became vicar of Eastham, rector of Hanley in Cheshire, and archdeacon of Chester. He wrote *Letters to Mr. Gibbon*, in which he defended the authenticity of the controverted passage in 1 John v. 7. He died in 1797.

**TRAUMATIC**, *adj.* Gr. *τραυματικός*. Vulnery; useful to wounds.

I deterged and disposed the ulcer to incarnate, and to do so I put the patient into a *traumatich* decoction. *Wiseman's Surgery.*

**TRAUNVIERTEL** (i. e. quarter of the Traun), a district of Upper Austria, along the Traun, and extending from the Danube to the borders of Styria. It has a territorial extent of 1955 square miles, with 170,000 inhabitants. The northern part is level and fertile, but the south full of lofty mountains. This part of the Traun abounds with salt and other mines. In 1809 the western part of this district was ceded to Bavaria, but was restored to Austria in 1815.

**TRAY**, *n. s.* Swedish *tray*. A shallow wooden vessel in which meat or fish is carried.



No more her care shall fill the hollow *tray*,  
To fat the guzzling hogs with floods of whey. *Gay*.

**TRAZ** or **MONTES**, a large province of the north-east of Portugal, extending in a form nearly square, having to the south the course of the Douro, to the north Spanish Galicia. Its territorial extent is about 5500 square miles, equal to four of our average counties; its population, much more thinly spread, hardly exceeds 350,000.

**TREACH'EROUS**, *adj.* } French *tricherie*.  
**TREACH'EROUSLY**, *adv.* } Faithless; perfidious;  
**TREACH'ERY**, *n. s.* } ous; guilty of de-  
**TREA'CHETOR**, *n. s.* } serting or betray-  
**TREA'CHOUR**. } ing: the adverb

and noun substantive corresponding: treachetor or treachour, is an obsolete synonyme of traitor.

He had the lion to be remitted  
Unto his seat, and those same *treacherous* vile  
Be punished for their presumptuous guile. *Spenser*.

Good Claudius with him in battle fought,  
In which the king was by a *treachetour*  
Disguised slain. *Id.*

Thou hast slain  
The flower of Europe for his chivalry,  
And *treacherously* hast thou vanquished him. *Shakspeare*.

I treated, trusted you, and thought you mine;  
When in requital of my best endeavours,  
You *treacherously* practised to undo me,  
Seduced my only child and stole her. *Othway*.  
They bid him strike, to appease the ghost  
Of his poor father *treacherously* lost. *Dryden's Juvenal*.

Desire in rapture gazed awhile,  
And saw the *treacherous* goddess smile. *Swift*.

**TREA'CLE**, *n. s.* Fr. *triacle*; Belg. *triackle*.  
A medicine made up of many ingredients: a syrup.

The physician that has observed the medicinal virtues of *treacle*, without knowing the nature of each of the sixty odd ingredients, may cure many patients with it. *Boyle*.

*Treacle* water has much of an acid in it. *Floyer*.

**TREAD**, *v. n., v. a., &* } *Pret. trod*; *part.*  
**TREAD'ER**, *n. s.* [*n. s.*] } *pass. trodden*. Saxon  
**TREAD'LE**. } *тредан*; Belg. *treden*;

*Gothic trudan*. To set the foot; trample; walk in form or state; copulate, as birds: as a verb active, to walk on, press, or beat under-foot; crush; put in action by the foot: a tread is a footing; step with the foot; way: treader, he who treads: treadle, part of a machine on which the feet act; the sperm of a cock.

Thou shalt *tread* upon their high places. *Deut. xxxiii. 29.*

Thou  
Must, as a foreign recreant, be led  
With manacles along our street, or else  
Triumphantly *tread* on thy country's ruin,  
And bear the palm. *Shakspeare. Coriolanus*.

If the streets were paved with thine eyes,  
Her feet were much too dainty for such *tread*. *Shakspeare*.

When shepherds pipe on oaten straws;  
When turtles *tread*. *Id.*

Would I had never *trod* this English earth,  
Or felt the flatteries that grow upon it! *Id.*

Full of briars is this working world.  
—They are but burs, if we walk not in the *trodden*  
paths, our very petticoats will catch them. *Id. As you like it*.

What distance between the *treading* or coupling, and the laying of the egg? *Bacon's Natural History*.  
The quaint mazes in the wanton green,  
For want of *tread*, are undistinguishable. *Milton*.  
Ye that stately *tread*, or lowly creep. *Id.*  
Whether it is not made out of the germe, or *treadle* of the egg, seemeth of lesser doubt.

*Browne's Vulgar Errors*.  
The dancer on the rope, with doubtful *tread*,  
Gets wherewithal to clothe and buy him bread. *Dryden*.

**TREADMILL**, an instrument of punishment, lately introduced into England and America, consisting of a large wheel, about twenty or twenty-five feet wide, with steps on its external surface, upon which the criminals are placed. Their weight sets the wheel in motion, and they maintain themselves in an upright posture by means of a horizontal bar fixed above them, of which they keep hold. The power thus obtained may be applied to the same purpose as water power, steam, &c. The exercise is very fatiguing, and the prisoners are relieved at short intervals of time.

**TREA'SON**, *n. s.* } French *trahison*. An of-  
**TREA'SONABLE**, *adj.* } fence committed against  
**TREA'SONOUS**. } the dignity and majesty  
of a commonwealth: see below: the adjective corresponding.

Athaliah cried, *Treason, treason*.  
2 *Kings*, xi. 14.  
He made the overture of thy *treasons* to us. *Shakspeare*.

Him by proofs as clear as founts in July  
I know to be corrupt and *treasonous*. *Id. Henry VIII*.

This being a *treason* against God, by a commerce with his enemy. *Holyday*.

Most men's heads had been intoxicated with imaginations of plots and *treasonable* practices. *Clarendon*.

Were it a draught for Juno when she banquets,  
I would not taste thy *treasonous* offer. *Milton*.

Man disobeying,  
Disloyal breaks his fealty, and smns  
Against the high supremacy of heaven:  
To expiate his *treason* hath nought left. *Id.*

A credit to run ten millions in debt without parliamentary security is dangerous, illegal, and perhaps *treasonable*. *Swift*.

**TREASON**, a general appellation, made use of by the law, to denote not only offences against the king and government, but also that accumulation of guilt which arises whenever a superior reposes a confidence in a subject or inferior, between whom and himself there subsists a natural, a civil, or even a spiritual relation; and the inferior so abuses that confidence, so forgets the obligations of duty, subjection, and allegiance, as to destroy the life of any such superior or lord. Hence treason is of two kinds, high and petty.

**TREASON HIGH**, or **TREASON PARAMOUNT** (which is equivalent to the crimen *læsæ majestatis* of the Romans), is an offence committed against the security of the king or kingdom, whether by imagination, word, or deed. The stat. 25 Edw. III. c. 2, defines what offences should be held to be treason; and it comprehends all kinds of high treason under seven branches. 1. When a man doth compass or

imagine the death of our lord the king, of our lady his queen, or of their eldest son and heir,' the stat. requires that the accused 'be thereof upon sufficient proof attainted of some open act by men of his own condition.' Thus, to provide weapons or ammunition for the purpose of killing the king, is held to be a palpable overt act of treason in imagining his death. To conspire to imprison the king by force, and move towards it by assembling company, is an overt act of compassing the king's death. It seems clearly to be agreed that by the common law and the stat. of Edw. III. words spoken amount only to a high misdemeanor, and no treason. If the words be set down in writing, it argues more deliberate intention; and it has been held that writing is an overt act of treason. But, even in this case, the bare words are not the treason, but the deliberate act of writing them. 2. 'If a man do violate the king's companion, or the king's eldest daughter unmarried, or the wife of the king's eldest son and heir.' By the king's companion is meant his wife; and by violation is understood carnal knowledge, as well without force as with it. 3. The third species of treason is, 'if a man do levy war against our lord the king in his realm.' And this may be done by taking arms, not only to dethrone the king, but under pretence to reform religion, or the laws, or to remove evil counsellors, or other grievances whether real or pretended. 4. 'If a man be adherent to the king's enemies in his realm, giving to them aid and comfort in the realm or elsewhere.' he is also declared guilty of high treason. 5. 'If a man counterfeit the king's great or privy seal,' this is also high treason. But if a man takes wax bearing the impression of the great seal off from one patent and fixes it to another, this is held to be only an abuse of the seal, and not a counterfeiting of it. 6. 'If a man counterfeit the king's money; and if a man bring false money into the realm counterfeit to the money of England, knowing the money to be false, to merchandise and make payment withal.' But gold and silver money only are held to be within this statute. It is held that uttering counterfeit money without importing it, is not within the statute. 7. 'If a man slay the chancellor, treasurer, or the king's justices of the one bench or the other, justices in eyre, or justices of assize, and all other justices assigned to hear and determine, being in their places doing their office.' But this statute extends only to the actual killing of them; and not to wounding or a bare attempt to kill them. The barons of the exchequer, as such, are not within the protection of this act; but the lord keeper or commissioners of the great seal now seem to be within it, by virtue of the stats. 5 Eliz. c. 18, and 1 W. and M. c. 21. The new treasons, created since the stat. 1 M. c. 1, and not comprehended under the description of stat. 25 Edw. III., may be comprised under three heads. The first species relates to Papists; the second to falsifying the coin or other royal signatures, as falsely forging the sign manual, privy signet, or privy seal, which shall be deemed high treason.—1 M. stat. ii. c. 6. The third new species of high treason is such as was created for the security of the Protestant

succession in the house of Hanover. For this purpose, after the act of settlement was made, it was enacted by stat. 13 and 14 W. III. c. 3, that the pretended prince of Wales, assuming the title of king James III., should be attainted of high treason; and it was made high treason for any of the king's subjects to hold correspondence with him or any person employed by him, or to remit money for his use. And, by 17 Geo. II. c. 39, it is enacted, that if any of the sons of the pretender shall land or attempt to land in this kingdom, or be found in the kingdom or any of its dominions, he shall be adjudged attainted of high treason; and corresponding with them, or remitting money to their use, is made high treason. By 1 Ann. stat. 2, c. 17, the offence of hindering the next in succession from succeeding to the crown, is high treason; and, by 6 Ann. c. 7, if any person shall maliciously, advisedly, and directly, by writing or printing, maintain that any other person hath any right to the crown of this realm, otherwise than according to the act of settlement, or that the kings of this realm with the authority of parliament are not able to make laws to bind the crown and its descent; such person shall be guilty of high treason. The punishment of high treason in general is very solemn and terrible. 1. That the offender be drawn to the gallows, and not be carried or walk; though usually (by connivance, at length ripened by humanity into law) a sledge or hurdle is allowed, to preserve the offender from the torment of being dragged on the ground or pavement. 2. That he be hanged by the neck, and then cut down alive. 3. That his entrails be taken out, and burned while he is yet alive. 4. That his head be cut off. 5. That his body be divided into four parts. 6. That his head and quarters be at the king's disposal. The king may, and often doth, discharge all the punishment except beheading, especially where any of noble blood are attainted. But where beheading is no part of the judgment, as in murder or other felonies, it hath been said that the king cannot change the judgment. In the case of coining, the punishment is milder for male offenders; being only to be drawn and hanged by the neck till dead. But, in treasons of every kind, the punishment of women is the same, being different, and perhaps more terrible than that of men. Their sentence, until of late years, was to be drawn to the gallows, and there to be burned alive. This barbarous punishment, to the disgrace of the law of England, was actually inflicted upon a poor woman, at London, so late as the year 1786. The woman fainted when led to the place of suffering. This circumstance excited the humanity of — Martin, esq. M. P. to bring in a bill for its abolition, which passed both houses during the winter sessions in 1788. See **ATTAINDER, FORFEITURE, and CORRUPTION OF BLOOD.**

**TREASON, PETTY, or PETIT,** according to the stat. 25 Edw. III. c. 2, may happen three ways: by a servant killing his master, a wife her husband, or an ecclesiastical person (either secular or regular) his superior, to whom he owes faith and obedience. Whatever has been said with respect to wilful murder is also applicable to the



crime of petit treason, which is no other than murder in its most odious degree; except that the trial shall be as in cases of high treason, before the improvements therein made by the statutes of William III. But a person indicted of petit treason may be acquitted thereof, and found guilty of manslaughter or murder. The punishment of petit treason in a man is to be drawn and hanged, and, in a woman, to be drawn and burned: the idea of which latter punishment seems to have been handed down to us from the laws of the ancient Druids, which condemned a woman to be burned for murdering her husband. Persons guilty of petit treason were first debarred the benefit of clergy by stat. 12 Henry VII. c. 7, which has since been extended to their aiders, abettors, and counsellors, by stat. 23 Henry VIII. c. 1, and 5, and 5 P. and M. c. 4.

|                         |   |
|-------------------------|---|
| TREASURE, n. s. & v. a. | } French <i>tresor</i> ;<br>Latin <i>thesaurus</i> ;<br>Wealth hoarded;<br>riches in store:<br>treasurehouse, |
| TREASUREHOUSE, n. s.    |   |
| TREASUREE,              |   |
| TREASURERSHIP,          |   |
| TREASURY.               |   |

the place of this deposit: treasurer, a depository of treasure: treasureship, his office or dignity: treasury, a place devoted to the storing or regulating treasures: used for the treasure itself by Shakspeare.

Let there be any grief or disease incident to the soul of men, for which there is not in this *treasure-house* a present comfortable remedy to be found.

Hooker.

An inventory, importing  
The several parcels of his plate, his *treasure*,  
Rich stuffs. Shakspeare. Henry VIII.

Thou silver *treasurehouse*,  
Tell me once more, what title dost thou bear?  
Shakspeare.

This is my *treasurer*, let him speak  
That I have reserved nothing.  
Id. Antony and Cleopatra.

Before the invention of laws, private affections in supreme rulers made their own fancies both their *treasurers* and hangmen, weighing in this balance good and evil.

He used his laws as well for collecting of *treasure*,  
as for correcting of manners. Bacon.

He preferred a base fellow, who was a suitor for the *treasurership*, before the most worthy. Hakevill.

The state of the *treasury* the king best knows.  
Temple.

Gold is *treasure* as well as silver, because not decaying, and never sinking much in value. Locke.

No, my remembrance *treasures* honest thoughts,  
And holds not things like thee; I scorn thy friendship.  
Rowe.

TREASURER, LORD HIGH, OF GREAT BRITAIN, or first commissioner of the treasury, when in commission, has under his charge and government all the king's revenue which is kept in the exchequer. He holds his place during the king's pleasure; being instituted by the delivery of a white staff to him. He has the check of all the officers employed in collecting the customs and royal revenues; and in his gift and disposition are all the offices of the customs in the several ports of the kingdom; escheators in every county are nominated by him; he also makes leases of the lands belonging to the crown.

TREASURER OF THE HOUSEHOLD is an officer who, in the absence of the lord steward, has

power, with the comptroller and other officers of the green-cloth and the steward of the marshalsea, to hear and determine treasons, felonies, and other crimes committed within the king's palace. See HOUSEHOLD. There is also a treasurer belonging to the establishment of her majesty's household, &c.

TREASURE-TROVE, in law, derived from the French word *trover*, to find, called in Latin *thesaurus inventus*, is where any money or coin, gold, silver, plate, or bullion, is found hidden in the earth or other private place, the owner thereof being unknown; in which case the treasure belongs to the king: but if he that hid it be known, or afterwards found out, the owner, and not the king, is entitled to it.

The TREASURY is the place in which the revenues of a prince are received, preserved, and disbursed. In England the treasury is a part of the exchequer; by some called the lower exchequer. The officers of his majesty's treasury, or the lower exchequer, are the lords commissioners, one of whom is chancellor, two joint secretaries, private secretary to the first lord, two chamberlains, an auditor, four tellers, a clerk of the pells, ushers of the receipt, a tally-cutter, &c. See CHANCELLOR, TELLER, &c.

|                             |  |
|-----------------------------|--|
| TREAT, v. a., v. n. & n. s. | } Fr. <i>traiter</i> ; Lat. <i>tracto</i> . To negotiate; settle; discourse on; manage; entertain: |
| TREAT'ABLE, adj.            |  |
| TREAT'ISE, n. s.            |  |
| TREAT'MENT,                 |  |
| TREAT'Y.                    |  |

the verb neuter and noun substantive correspond: treatable is, moderate; manageable: treatise, a discourse; tract: treatment, usage: treaty, negotiation; act of treating; supplication; petition; compact made.

The king treated with them. 2 Mac. xiii. 22.

A virtuous mind should rather wish to depart this world with a kind of *treatable* dissolution, than be suddenly cut off in a moment; rather to be taken than snatched away.

Hooker.

The time has been, my fell of hair  
Would at a dismal *treatise* rouse, and stir  
As life were in 't. Shakspeare.

I must  
To the young man send humble *treaties*, dog,  
And palter in the shift of lowliness. Id.

Of love they *treat* till the' evening star appeared.  
Milton.

The heats or the colds of seasons are less *treatable* than with us. Temple.

To treat the peace, a hundred senators  
Shall be commissioned. Dryden's Æneid.

This is the ceremony of my fate:  
A parting *treat*, and I'm to die in state. Dryden.

Scarce an humour or character which they have not used; all comes wasted to us: and, were they to entertain this age, they could not now make such *plenteous treatment*. Id.

Absence, what the poets call death in love, has given occasion to beautiful complaints in those authors who have *treated* of this passion in verse.

Addison's Spectator.

Echion then  
Lets fall the guiltless weapon from his hand,  
And with the rest a peaceful *treaty* makes. Id. Ovid.

If we do not please, at least we *treat*. Prior.  
He pretends a great concern for his country, and insight into matters; now such professions, when recommended by a *treat*, dispose an audience to hear reason. Collier.

What tender maid but must a victim fall  
For one man's *treat*, but for another's ball ! Pope.  
You, Master Dean, frequent the great,  
Inform us, will the emperor *treat*? Swift.

TREBATIUS TESTAS (Caius), a writer of the Augustan age, who was banished by Caesar as a partizan of Pompey, but was afterwards reconciled to him. He was eminent for his integrity. He wrote on civil law, and some good poems, and other tracts.—Hor. 2 Sat.

TREBELLIVS POLLIO, a Latin historian, who flourished about A. D. 305. He wrote the Lives of the Roman Emperors; the beginning of this work is lost; but part of the life of Valerian, the reigns of the two Gallieni, and the reigns of the thirty tyrants, are extant.

TREBIA, or TREBBIA, a river in the north of Italy, in the duchy of Parma, which rises among the Appennines and falls into the Po above Piacenza. Though not large it is a rapid and impetuous stream. It gave name to the second victory which signalled Hannibal's invasion of Italy, the scene of which is supposed to have been between the embouchure of the Trebia and Piacenza. Its banks were the scene also of sanguinary fighting in June 1799, between the French under Macdonald and the Russians under Suwarrow, in which the latter were victorious.

TREBIGH, or TURBIGH, a hamlet of England, in Cornwall, four miles and a half W. S. W. of Collington.

TREBIGNE. See TSCHERBENIDSCHÉ.

TREBILIS, the ancient name of Tripoli. See TRIPOLI.

TREBISOND, an ancient city of Asia Minor on the coast of the Black Sea. It is mentioned by Xenophon under the appellation of Trapezus, as forming the termination of the retreat of the 10,000, and is stated to have been then a populous colony of the Sinopians, situated in the country of the Colchians. It continued a free and independent city till it fell under the dominion of the kings of Pontus. After the capture of Constantinople by the Latins in 1203 Trebisond became, under Alexis Comnenus, the seat of an empire extending from the mouth of the Phasis to that of the Halys. It surrendered, however, to Mahomet II. The city is of an oblong shape, occupying a slope gently rising from the sea. On the east and west it is defended by two deep ravines, connected by a ditch cut in the rock, and along the skirts of which run the ancient ramparts of the city, which are built of stone, and in general very lofty. Trebisond is said to contain a population of 15,000 souls. The trade considerable; the principal exports silk and cotton stuffs manufactured by the inhabitants, fruit, and wine. The imports sugar, coffee, and woollen cloths, from Constantinople; corn, salt, and iron, from the Crimea and Mingrelia.

TREBLE, *adj.*, v. a. & } Fr. *triple*; Lat. *tri-*  
TREBLY, *adv.* [v. n.] *plus, triplex*. Three-  
fold; triple: to multiply by three: become  
threefold: thrice told.

She conceived, and *treb'ling* the due time,  
Brought forth this monstrous mass. Spenser.

Some I see,

That twofold balls and *treble* sceptres carry.  
Shakspeare.

All his malice served but to bring forth  
Infinite goodness, grace, and mercy shewn  
On man by him seduced; but on himself  
Treble confusion, wrath, and vengeance poured.  
Milton.

A lofty tower, and strong on every side  
With *treble* walls. Dryden's *Æneid*.

His javelin sent,  
The shield gave way; through *treble* plates it went  
Of solid brass, of linnen *trebly* rolled. Id.

Whoever annually runs out, as the debt doubles  
and *trebles* upon him, so doth his inability to pay it.  
Swift.

TREBLE, *n. s.* } Of uncertain etymology. A  
TREBLENESS. } sharp sound: state of being  
treble.

The *treble* cutteth the air so sharp, as it returneth  
too swift to make the sound equal; and therefore a  
mean or tenor is the sweetest. Bacon.

The just proportion of the air percussed towards  
the baseness or *trebleness* of tones is a great secret  
in sounds. Id.

The lute still trembles underneath thy nail:  
At thy well-sharpened thumb, from shore to shore,  
The *trebles* squeak for fear, the bases roar. Dryden.

TREBLE, in music, the highest or most acute  
of the four parts in symphony, or that which is  
heard the clearest and shrillest in a concert.

TREE, *n. s.* Sax. *træo*; Isl. *trie*; Dan. *tree*.  
A vegetable with woody stem and branches; any  
thing branched out: *treen* is the old plural.

Who can bid the *tree* unfix his earth-bound root?  
Shakspeare.

Well run greenhood, got between  
Under the sand-bag he was seen;  
Lowting low like a forester green,  
He knows his tackle and his *reen*. Ben Jonson.

Vain are their hopes who fancy to inherit,  
By *trees* of pedigrees, or fame or merit;  
Though plodding heralds through each branch may  
trace

Old captains and dictators of their race. Dryden.  
*Trees* shoot up in one great stem, and at a good  
distance from the earth spread into branches: thus  
gooseberries are shrubs, and oaks are *trees*. Locke.

TREE GERMANDER, in botany. See TEUCRIUM.  
TREE MOSS, a species of lichen.

TREE OF LIFE, or lignum vite, in botany. See  
GUAIACUM.

TREE PRIMROSE, in botany. See OENOTHERA.  
TREE TREFOIL. See CYTISUS.

TREES. All trees may be divided into two  
classes, timber and fruit-trees; the first including  
all those trees which are used in machinery,  
ship-building, &c., or, in general, for purposes  
of utility; and the second comprehending those  
trees valued only, or chiefly, for their fruit. It  
is not necessary to form a third class to include  
trees used for fuel, as all timber is used for this  
purpose where it is abundant. For the botanical  
classification of trees and plants in general, see  
BOTANY.

Few experiments have been made to deter-  
mine what the additions are which a tree receives  
annually in different periods of its age. Mr.  
Barker has drawn up a table to point out the  
growth of three kinds of trees, oaks, ashes, and  
elms; which may be seen in the Philosophical  
Transactions for 1788. His conclusions are  
these:—‘I find the growth of oak and ash to be  
nearly the same. The common growth of an oak



or an ash is about an inch in girth in a year; some thriving ones will grow an inch and a half. Great trees grow more timber in a year than small ones; for, if the annual growth be an inch, a coat of one-sixth of an inch is laid on all around, and the timber added to the body every year is its length multiplied into the thickness of the coat and into the girth, and therefore the thicker the tree is the more timber is added.' The following table shows the growth of seventeen kinds of trees for three years. The trees grew at Cavenham in Suffolk.

| No.                            | July 1785. |            |   | July 1786. |            |   | July 1787. |            |  |
|--------------------------------|------------|------------|---|------------|------------|---|------------|------------|--|
|                                | <i>Ft.</i> | <i>In.</i> |   | <i>Ft.</i> | <i>In.</i> |   | <i>Ft.</i> | <i>In.</i> |  |
| 1. Oak . . . . .               | 0          | 10½        | — | 0          | 11½        | — | 1          | 0½         |  |
| 2. Larch . . . . .             | 1          | 0½         | — | 1          | 3          | — | 1          | 4          |  |
| 3. Scots fir . . . . .         | 1          | 3½         | — | 1          | 5½         | — | 1          | 7½         |  |
| 4. Spruce fir . . . . .        | 0          | 5½         | — | 0          | 6½         | — | 0          | 7½         |  |
| 5. Spanish chestnut . . . . .  | 0          | 7½         | — | 0          | 7½         | — | 0          | 8          |  |
| 6. Elm . . . . .               | 2          | 7½         | — | 2          | 9          | — | 2          | 11         |  |
| 7. Pinaster . . . . .          | 2          | 3½         | — | 2          | 4½         | — | 2          | 7½         |  |
| 8. Larch . . . . .             | 1          | 5½         | — | 1          | 6          | — | 1          | 7          |  |
| 9. Weymouth pine . . . . .     | 0          | 5          | — | 0          | 6          | — | 0          | 7½         |  |
| 10. Acacia . . . . .           | 1          | 2½         | — | 1          | 5½         | — | 1          | 6½         |  |
| 11. Beech . . . . .            | 0          | 6½         | — | 0          | 6½         | — | 0          | 7½         |  |
| 12. Plane occidental . . . . . | 0          | 6½         | — | 0          | 7½         | — | 0          | 8½         |  |
| 13. Lombardy poplar . . . . .  | 1          | 8          | — | 2          | 0          | — | 2          | 3½         |  |
| 14. Black poplar . . . . .     | 1          | 2½         | — | 1          | 4½         | — | 1          | 5½         |  |
| 15. Willow . . . . .           | 2          | 9½         | — | 3          | 2          | — | 3          | 3          |  |
| 16. Silver fir . . . . .       | 0          | 7½         | — | 0          | 8½         | — | 0          | 9½         |  |
| 17. Lime . . . . .             | 1          | 8½         | — | 1          | 10½        | — | 2          | 0          |  |

Heat is so essential to the growth of trees that as we go from the place within the polar circles where vegetation begins, and advance to the equator, we find the trees increase in size remarkably. Greenland, Iceland, and other places in the same latitude, yield no trees at all; and the shrubs which they produce are dwarfish; whereas, in warm climates, they often grow to an immense size. The largest tree in Europe, mentioned by travellers, is a chestnut on Mount *Ætna*. It is certain that trees acquire a very great size in volcanic countries. Besides the multitude of fine groves in the neighbourhood of Albano in Italy, there are many detached oaks twenty feet in circumference, and many elms of the same size, especially in the romantic way to Estello, called the *Galleria*. In travelling by the side of the lake of Bolsenna the road leads us through an immense number of oaks, spread upon beautiful hills. Some yews have been found in Britain sixty feet round. Palms in Jamaica attain the height of 200 feet; and some of the pines in Norfolk Island are 280 feet high.

The goodness of timber not only depends on the soil and situation in which it stands, but likewise on the season in which it is felled. In this people disagree very much; some are for having it felled as soon as its fruit is ripe, others in the spring, and many in the autumn. But, as the sap and moisture of timber is certainly the cause that it perishes much sooner than it otherwise would do, it seems evident that timber should be felled when there is the least sap in it, viz. from the time that the leaves begin to fall, till the trees begin to bud. This work usually commences about the end of April in England, because the bark then rises most freely; for, where

a quantity of timber is to be felled, the statute requires it to be done then, for the advantage of tanning. The ancients chiefly regarded the age of the moon in felling their timber; their rule was to fell it in the wane, or four days after the new moon, or sometimes in the last quarter. Pliny advises it to be in the very instant of the change; which happening to be in the last day of the winter solstice, the timber, says he, will be incorruptible. Timber should likewise be cut when of a proper age; for when it is either too young or too old it will not be so durable as when cut at a proper age. It is said that oak should not be cut under sixty years old, nor above 200. Timber, however, should be cut in its prime, when almost fully grown, and before it begins to decay; and this will be sooner or later according to the dryness or moistness of the soil where the timber grows, as also according to the bigness of the trees; for there are no fixed rules in felling of timber: experience and judgment must direct here as in most other cases.

The chevalier de Blenheim of Prague, we are told, has discovered a method of effectually preserving trees in blossom from the fatal effects of those frosts which sometimes in the spring destroy the most promising hopes of a plentiful crop of fruit. His method is extremely simple. He surrounds the trunk of the tree in blossom with a wisp of straw or hemp. The end of this he sinks, by means of a stone tied to it, in a vessel of spring water, at a little distance from the tree. One vessel will conveniently serve two trees; or the cord may be lengthened so as to surround several, before its end is plunged into the water. It is necessary that the vessel be placed in an open situation, and by no means shaded by the branches of the neighbouring trees, that the frost may produce all its effect on the water, by means of the cord communicating with it. This precaution is particularly necessary for those trees the flowers of which appear nearly at the same time as the leaves; which trees are peculiarly exposed to the ravages of the frost. The proofs of its efficacy, which he had an opportunity of observing in the spring of 1787, were remarkably striking. Seven apricot espaliers in his garden began to blossom in March. Fearing that they would suffer from the late frosts, he surrounded them with cords as above directed. In effect, pretty sharp frosts took place six or eight nights; the apricot-trees in the neighbouring gardens were all frozen, and none of them produced any fruit, whilst each of the chevalier's produced fruit in abundance, which came to the greatest perfection.

After trees are cut down, great attention is necessary in the seasoning of timber. Some advise the planks of timber to be laid for a few days in some pool or running stream, in order to extract the sap, and afterwards to dry them in the sun or air. By this, it is said, they will be prevented from either chopping, casting, or cleaving; but against shrinking there is no remedy. Some again are for burying them in the earth, others in a heat; and some for scorching and seasoning them in fire, especially piles, posts, &c., which are to stand in water or earth. The Venetians first found out the method of season-

ing by fire; which is done after this manner:— They put the piece to be seasoned into a strong and violent flame; in this they continually turn 't round by means of an engine, and take it out when it is every where covered with a black coaly crust; the internal part of the wood is thereby so hardened that neither earth nor water can damage it for a long time afterwards. Dr. Plott says it is found, by long experience, that the trunk or body of the trees, when barked in the spring, and left standing naked all the summer exposed to the sun and wind, are so dried and hardened, that the sappy part in a manner becomes as firm and durable as the heart itself. This is confirmed by M. Buffon, who, in 1738, presented to the Royal Academy of Sciences at Paris a memoir, entitled *An easy Method of Increasing the Solidity, Strength, and Duration of Timber*; for which purpose, he observes, 'nothing more is necessary than to strip the tree entirely of its bark during the season of the rising of the sap, and to leave it to dry completely before it be cut down.' By many experiments, particularly described in that essay, it appears that the tree should not be felled till the third year after it has been stripped of the bark; that it is then perfectly dry, and the sap becomes almost as strong as the rest of the timber, and stronger than the heart of any other oak tree which has not been so stripped; and the whole of the timber stronger, heavier, and harder; from which he thinks it fair to conclude that it is also more durable. 'It would no longer,' he adds, 'be necessary, if this method were practised, to cut off the sap; the whole of the tree might be used as timber; one of forty years' growth would serve all the purposes for which one of sixty years is now required; and this practice would have the double advantage of increasing the quantity, as well as the strength and solidity, of the timber.' After the planks of timber have been well seasoned and fixed in their places, care is to be taken to defend or preserve them; to which the smearing them with linseed oil, tar, or the like oleaginous matter, contributes much. The ancients, particularly Hesiod and Virgil, advise the smoke drying of all instruments made of wood, by hanging them up in the chimneys where wood fires are used. The Dutch preserve their gates, portcullises, draw bridges, sluices, &c., by coating them over with a mixture of pitch and tar, whereon they strew small pieces of cockle and other shells, beaten almost to powder, and mixed with sea-sand, which incrusts and arms them wonderfully against all assaults of wind and weather. When timber is felled before the sap is perfectly at rest, it is very subject to worms; but, to prevent and cure this, Mr. Evelyn recommends the following remedy as the most approved: Put common sulphur into a cucurbit with as much aquafortis as will cover it three fingers' deep; distil it to dryness, which is performed by two or three rectifications. Lay the sulphur that remains at bottom, being of a blackish or sand red color, on a marble, or put it in a glass, and it will dissolve into an oil; with this oil anoint the timber which is infected with worms. This, he says, will not only prevent worms, but preserve all kinds of woods, and

many other things, as ropes, nets, and masts, from putrefaction, either in water, air, or snow. An experiment to determine the comparative durability of different kinds of timber, when exposed to the weather, was made by a nobleman in Norfolk; of which an account is given by Sir Thomas Bevor. This nobleman, in 1774, ordered three posts, forming two sides of a quadrangle, to be fixed in the earth on a rising ground in his park. Into these posts were mortised planks an inch and a half thick, cut out of trees from thirty to forty-five years' growth. These, after standing ten years, were examined, and found in the following state and condition: The cedar was perfectly sound; larch, the heart sound, but the sap quite decayed; spruce fir sound; silver fir in decay; Scots fir much decayed; pinlaster quite rotten; chestnut perfectly sound; abele sound; beech sound; walnut in decay; sycamore much decayed; birch quite rotten. Sir Thomas Bevor justly remarks that the trees ought to have been of the same age; and Mr. Arthur Young adds, they ought to have been cut out of the same plantation.

The immense quantity of timber consumed of late years in ship-building and for other purposes has diminished in a very great degree the quantity produced in this country. On this account many gentlemen who wish well to their country, alarmed with the fear of a scarcity, have strongly recommended it to government to pay some attention to the cultivation and preservation of timber. The price of wood has risen in proportion to the demand and to its diminution. At the conquest woods were valued, not by the quantity of timber which they contained, but the number of swine which the acorns could support. In 1608 oak in the forests was sold at 10s. per load, and fire-wood for 2s. per load. In 1663 or 1665, in navy contracts, from £2 to £2 15s. 6d. per load was given. In 1756 it rose to £4 5s. per load, and 3s. in addition, because no tops are received. Plank four inch sold in 1796 for £7 a load, three inch £4; which prices were the same in 1792. The expenditure of valuable timber is now so great as to give reason to fear that the forests of this country will soon be entirely dismantled unless something is done to raise fresh supplies. The building of a seventy gun ship, it is said, would take forty acres of timber. This calculation appears excessive, but seems to be no exaggeration. According to the prevailing opinion of experienced surveyors it will require a good soil and good management to produce forty trees on an acre, which, in 100 years, may, at an average, be computed at two loads each. Reckoning, therefore, two loads at £8 16s., one acre will be worth £350, and consequently forty acres will only be worth £14,200. Now a seventy gun ship is generally supposed to cost £70,000; and, as ships do not last many years, the navy continually require new ships, so that the forests must be stripped in a century or two, unless young trees are planted to supply their place. No doubt we depend greatly on Russia, Sweden, Norway, and America, for supplying us with timber; and while these countries take our manufactures in exchange we have no reason to complain. Still, however, we ought



not to neglect the cultivation of what is of so much importance to our existence as a nation; for it may often be impossible in time of war to obtain timber from foreign countries.

**TREFOIL**, *n. s.* Lat. *trifolium*. A plant.

Hope, by the ancients, was drawn in the form of a sweet and beautiful child standing upon tiptoes, and a trefoil or three-leaved grass in her hand.

*Peacham on Drawing.*

Some sow trefoil or rye-grass with their clover.

*Mortimer.*

**TREFOIL**, in botany. See **TRIFOLIUM**.

**TREFOIL**, BEAN, a species of *cyticus*.

**TREFOIL**, BIRD'S FOOT. See **LOTUS**.

**TREFOIL**, MARSH. See **MENYANTHES**.

**TREFOIL**, MOON, a species of *medicago*.

**TREFOIL**, SHRUB. See **PTELEA**.

**TREFOIL**, SHRUB, OF MONTPELIER. See **LOTUS**.

**TREFOIL**, SNAIL. See **MEDICAGO**.

**TREFOIL**, STINKING BEAN. See **ANAGYRIS**.

**TREFOIL**, THORNT, a species of *fagonia*.

**TREFOIL**, TREE. See **CYTISUS**.

**TREGONY**, a post and market town in the hundred of Powder, distant 248 miles nearly W.S.W. from London, and seventy-five south-west from Exeter. It is an ancient town, situated on the banks of the river Fal, and is supposed to have been the first settlement on this branch of the harbour, and the Cenio of the Romans, by whom also the harbour was named Cenius. Some small vestiges of Roman works may still be found. It sent two members to parliament in the reign of Henry I., and, after long disuse, recovered its ancient privileges in 1559. The right of election was vested in the townsmen, who were potwallers: it was disfranchised in 1832. It appears that the town was anciently governed by a portreeve; but, in 1620, James I. granted it a charter of incorporation by the style of the 'mayor, corporation, and eight capital burgesses,' the senior of whom is a justice of the peace. The houses are chiefly disposed in one long street. The old town was seated on the low ground at the bottom of the hill on which the present one is built. The market-day is Saturday. Fairs are held here on Shrove-Tuesday, the 3d of May, the 25th of July, the 1st of September, and the 6th of November. Inhabitants 1127.

**TREILLAGE**, *n. s.* Fr. *treillage*. Defined below.

*Treillage* is a contexture of pales to support espaliers, making a distinct inclosure of any part of a garden.

*Trevoux.*

**TREMBLE**, *v. n.* } Fr. *trembler*; Lat. **TREMBLINGLY**, *adv.* } *tremo*. To shake as with fear or cold; shiver; quake; quiver; totter: the adverb corresponding.

Winds make a noise unequally, and sometimes, when vehement, tremble at the height of their blast.

*Bacon.*

When he heard the king he fell into such a trembling that he could hardly speak.

*Clarendon.*

Sini's grey top shall tremble.

*Milton.*

Frighted Turnus trembled as he spoke.

*Dryden's Æneid.*

We cannot imagine a mass of water to have stood upon the middle of the earth like one great drop, or a trembling jelly, and all the places about it dry.

*Burnet.*

Ye powers, revenge your violated altars,  
That they who with unhallowed hands approach  
May tremble.

*Rowe.*

**TREMELLA**, in botany, a genus of plants belonging to the class of cryptogamia, and natural order of algæ. It is a gelatinous membranous substance; the parts of the fructification scarcely visible. There are eleven species, of which the five following are indigenous:—1. *T. hemisphærica*, the sea tremella, is scattered among conservæ, fuci, &c. 2. *T. lichenoides*, the transparent tremella, is erect, plane, the margin curled, lacinulated, and brown. It grows on heaths and in woods, &c. 3. *T. nostoc*, the jelly rain tremella, is found in pastures and by the sides of gravel walks in gardens after rains; not uncommon in spring, summer, and autumn. It is a membranaceous, pellucid, and gelatinous substance, without any visible root; of a yellowish dull green color; assuming various forms, either round, angular, plaited, or folded together irregularly, like the intestines, an inch or two or more in diameter; soft to the touch when moist; but thin, membranaceous, and brittle when dry; and of a black fuscous color. The ancient alchemists called this vegetable the flowers of heaven, and imagined that from it they could procure the universal menstruum; but all their researches ended in discovering that by distillation it yielded some phlegm, volatile salt, and empyreumatic oil. 4. *T. purpurea*, the purple tremella, is globular, sessile, solitary, and smooth. It grows on ditch banks about London. 5. *T. verrucosa*, the warty tremella, is tubercular, solid, wrinkled, roundish, and resembling a bladder; it is of a blackish yellow. It grows on stones in rivulets.

**TREMELLIUS** (Emanuel), a Jew born at Ferrara in 1510. He was a great master of the Hebrew tongue; and was converted to Christianity by the celebrated Peter Martyr. After travelling to Germany and England he was made professor of Hebrew, first at Heidelberg, and then at Sedan, where he died in 1580. He translated the Hebrew Bible and Syriac Testament into Latin; in the former he was assisted by Junius, who also corrected the second edition in 1587.

**TREMENDOUS**, *adj.* Latin *tremendus*. Dreadful; horrible; astonishingly terrible.

There stands an altar where the priest celebrates some mysteries sacred and tremendous.

*Tatler.*

In that portal should the chief appear,  
Each hand tremendous with a brazen spear.

*Pope's Odyssey.*

**TREMOLITE**. This sub-species of straight-edged augite is divided into three kinds; the asbestous, common, and glassy.

1. *Asbestous tremolite*.—Color grayish-white. Massive, and in fibrous concretions. Shining, pearly. Fragments splintery. Translucent on the edges. Rather easily frangible. Soft. Rather sectile. When struck gently, or rubbed in the dark, it emits a pale reddish light; when pounded and thrown on coals a greenish light. Before the blowpipe it melts into a white opaque mass. It occurs most frequently in granular foliated limestone, or in dolomite. It is found in the former in Glentilt and Glenelg; in the

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latter in Aberdeenshire and Icolmkill; and in basalt in the castle rock of Edinburgh.

2. *Common tremolite*.—Color white. Massive, in distinct prismatic concretions, and crystallised in a very oblique four-sided prism, truncated or bevelled on the lateral edges; in an extremely oblique four-sided prism, perfect or variously modified by bevelment or truncation. The lateral planes are longitudinally streaked. Vitreous or pearly. Cleavage double oblique angular, of  $124^{\circ} 50'$  and  $55^{\circ} 50'$ . Fracture uneven or conchoidal. Translucent. As hard as hornblende. Rather brittle. Specific gravity 2.9 to 3.2. It melts with much difficulty and ebullition into an opaque glass. Its constituents are, silica 50, magnesia 25, lime 18, carbonic acid and water 5.—Laugier. It occurs with the preceding.

3. *Glassy tremolite*.—Color grayish, greenish, yellowish, and reddish-white. Massive, in distinct concretions, and frequently crystallised in long acicular crystals. Shining, between vitreous and pearly. Translucent. As hard as hornblende. Very brittle. Specific gravity 2.863. It is phosphorescent in a low degree. Infusible. Its constituents are, silica 35.5, lime 26.5, magnesia 16.5, water and carbonic acid 23.—Laugier. It occurs with the preceding.—Jameson.

TREMOR, *n. s.* } Latin *tremor*, *tremulus*.

TREMULOUS, *adj.* } The state of trembling: fearful; quivering.

The tender *tremulous* Christian is easily distracted and amazed by them. *Decoy of Piety.*

He fell into an universal *tremour* of all his joints, that when going his legs trembled under him. *Harvey.*

Sometimes contrary *tremours* fall at one and the same time upon different points in the bottom of the eye. *Newton.*

By its styptick and stimulating quality it affects the nerves, occasioning *tremours*. *Arbuthnot on Aliments.*

As thus the' effulgence *tremulous* I drink,  
The lambent lightnings shoot across the sky. *Thomson.*

TRENCH, *v. a. & n. s.* Fr. *trencher*, of Lat. *trunco*. To cut; cut into pits or ditches: a pit or ditch: applied particularly to these modes of defence in fortification.

Safe in a ditch he bides,  
With twenty *trenched* gashes on his head. *Shakspeare.*

The citizens of Corioli have issued forth,  
And given to Lartius and to Marcia battle:  
I saw our party to the *trenches* driven,  
And then I came away. *Id. Coriolanus.*

Pioneers, with spades and pickaxe armed,  
Forerun the royal camp to *trench* a field. *Milton.*

When you have got your water up to the highest part of the land, make a small *trench* to carry some of the water in, keeping it always upon a level. *Mortimer's Husbandry.*

*Trench* the ground, and make it ready for the spring. *Evelyn.*

First draw thy faulchion, and on every side  
*Trench* the black earth a cubit long and wide. *Pope.*

TRENCHARD (John), a political writer, born in Somersetshire in 1669. He studied the law, but never practised it. Being elected M. P. for Taunton, in his native county, he wrote several political pamphlets, and, in conjunction with Mr. Gordon, Cato's Letters, and the Independent

Whig. He died in 1723; and his friend Gordon married his widow.

TRENCHANT, *adj.* Fr. *trenchant*. Cutting sharp.

He fiercely took his *trenchant* blade in hand,  
With which he struck so furious and so fell,  
That nothing seemed the puissance could withstand. *Spenser.*

Against a vanquished foe their swords  
Were sharp and *trenchant*, not their words. *Hudibras.*

TRENCHER, *n. s.* Fr. *trenchoir*. A piece of wood on which meat is cut at table: hence the table; food.

No more  
I'll scrape *trencher*, nor wash dish. *Shakspeare. Tempest.*

When we find our dogs, we set the dish or *trencher* on the ground. *More's Antidote against Atheism.*

Their homely fare dispatched; the hungry band  
Invade their *trenchers* next, and soon devour. *Dryden.*

Many a child may have the idea of a square *trencher*, or round plate, before he has any idea of infinite. *Locke.*

TRENCHERFLY, *n. s.* Trencher and fly. One that haunts tables; a parasite.

He found all people came to him promiscuously, and he tried which of them were friends, and which only *trencher-flies* and spongers. *L'Estrange.*

TRENCHERMAN, *n. s.* Trencher and man. A cook. Obsolete.

Palladius assured him that he had already been more fed to his liking than he could be by the skillfullest *trenchermen* of Media. *Sidney.*

You had musty victuals, and he bath help to eat it: he's a very valiant *trencherman*; he hath an excellent stomach. *Shakspeare.*

TRENCHERMATE, *n. s.* Trencher and mate. A table companion; a parasite.

Because that judicious learning of the ancient sages doth not in this case serve the turn, these *trenchermates* frame to themselves a way more pleasant; new method they have of turning things that are serious into mockery, an art of contradiction by way of scorn. *Hooker.*

TRENCK (Francis baron), a Prussian nobleman, who, by some trivial piece of imprudence, had given such offence to Frederick the Great, king of Prussia, that he was kept, by the iniquitous power of that despot, under a tedious, cruel, and solitary confinement for above forty years, without ever being brought to trial or confronted with his accusers. From this cruel imprisonment he at last effected his escape, and published a very interesting memoir of his life, sufferings, and innocence. But, while this narrative interested the feelings of every humane reader in Europe, in favor of the author, he took refuge in France, expecting to enjoy that liberty and equality which the French democrates professed to hold out to all mankind. Instead of this, the revolutionary tribunal of the French republic proved more savage than the despot of Prussia, and condemned to the guillotine a man whose life of protracted misfortune ought to have pleaded in his favor, even if he had been convicted of something really criminal, of which there never was a shadow of evidence. This unfortunate baron completed his career in August 1794.



**TREND**, *v. n.* It seems a corruption of *tend*. To tend ; lie in any particular direction.

The scouts to several parts divide their way,  
To learn the natives names, their towns, explore  
The coasts and *trendings* of the crooked shore.

*Dryden.*

**TRENT**, a city of the Tyrol, Austria, on the Adige, not far from the borders of Italy. It stands in a delightful valley among the Alps, but its climate is subject to great extremes. Though surrounded with walls, it is not capable of sustaining a siege. Its population is about 10,000, employed partly in the manufacture of silk, partly in the culture of vines and tobacco. The public buildings are the residence, or, as it is termed, the palace of the archbishop : the cathedral is a Gothic structure not remarkable for its size or beauty ; but its organ, as well as that of the other principal church, St. Maria Maggiore, is admired. The Romans, who conquered it from the Galli Cenomani, called it *Tridentum*. The bishopric was included among the secularisations of 1802, given at first to the grand duke of Tuscany, and afterwards to Bavaria, but restored, after 1815, to Austria. It is eighty-five miles south of Innsbruck.

**TRENT, COUNCIL OF.** This reckons, among Roman Catholic divines, as the eighteenth or last general council, and sat, including interruptions, eighteen years. Its decisions are implicitly received as the standard of faith, morals, and discipline, in the Catholic church. It confirms, under an anathema, the canons of preceding councils, and defines, with greater precision, whatever had been left only generally affirmed, or indistinctly defined. From the rank and importance of this council we offer the following analysis of its proceedings, as well calculated to gratify the curiosity of the reader at a time when reference to its canons is become both necessary and interesting. It must be remembered that while the ecclesiastics of the church of Rome are sworn to maintain generally whatever has been delivered, defined, and declared by the sacred canons and oecumenical councils, yet are they specially (*præcipue*) bound to observe what has been so done by the council of Trent (*usque ad extremum vite spiritum*) to the last gasp of life.

The council first assembled A. D. 1545, and continued, with interruptions, caused by suspension, removal to Bononia, &c., to the end of the year 1563 ; thus completing a period of eighteen years, during which it was under the direction of Paul III., Julius III., and Pius IV. ; twenty-five bishops, headed by the papal legates, and some ecclesiastics of inferior rank, principally Italians.

At its opening session, after due regard had been paid to the solemnities of religion, one of the first points agitated related to the title of the council, when it was agreed to call it a General Council of the Church. The first session presents nothing else worthy of observation. Pending its existence, the papal legates received their secret instructions from Rome to attend exclusively to points of doctrine, and not to touch on the subject of reform until these were disposed of ; but, lest the rights or prerogatives of the holy see should be endangered, in imitation of his

predecessors Martin V. and John XXIII., the pope sent them a brief to adjourn, dissolve, or translate, the council according to the exigency of the case.

In the second session the French prelates renewed the application made in the former about the addition of the words ‘ *Universam ecclesiam representans*.’ This gave rise to a debate which terminated in a resolution that oecumenical should only be added to the title already given to the council by the pope ! Twenty-eight members only attended this session, including the archbishop of Armagh. The rule laid down by them is curious enough, considering that it was for the regulation of an episcopal assembly claiming to be legitimately convened under the guidance of the Holy Spirit. ‘ In delivering his opinion no one ought to vociferate with indecent language, or to create confusion by tumult ; no one contend with false, vain, or obstinate contention ; so that the hearers be not offended, nor the discrimination of a correct judgment be perverted by perturbation of mind.’

In the third session the council decreed that a confession of faith should be prepared. There being so few present at the passing of this order, they decreed that their future decisions should be sanctioned by the fullest attendance possible, in order that matters of such high importance should not be hurried over in their meetings.

In the fourth session forty-eight bishops and five cardinals proceeded to establish *tradition* on the same footing with the canonical Scriptures. Their words are ‘ *pari pietate ac reverentiâ suscipit et veneratur*.’ And they pronounced the Latin vulgate, including the Apocrypha, free from error, while, at the very moment, they ordered a more correct edition to be prepared.

The fifth and sixth sessions were chiefly spent in extracting from Luther’s and Zuinglius’s writings (from those of the former principally) certain propositions touching the canonicity of Scripture, justification, imputed righteousness, original sin, predestination, merit of congruity, and the number of the sacraments, which they condemned in consecutive order. On these points grave debates arose, but such as are uninteresting at the present time. Other doctrinal questions came next under discussion, and would have been quietly carried with the pope’s full concurrence, but the imperial no less than the Spanish bishops were not content to stop there. They earnestly pressed the removal of old grievances, and that the church should be reformed in its head and members ; measures which constituted the chief grounds for assembling the council of Constance in the early part of the preceding century. The papal prelates, acting under the express orders of Paul, as obstinately resisted any attempt at change. This led him to encourage a report which had been industriously spread by his physicians of a purple fever having broken out in Trent ; as it afforded him a pretext for transferring the council to Bologna, a town in the papal states, and consequently beyond the reach of the emperor’s influence. On the adjournment taking place, the imperialists and Spaniards remained in Trent remonstrating loudly against it, and alleging that the removal of the

council was a virtual suspension of its functions, if not a total dissolution. But, as remonstrance was vain, they contented themselves with making arrangements for their future proceedings, without performing any synodal act whatever; at the same time assuming a title '*Sancta synodus in quocunque sit loco*' declaratory of their competence to deliberate on the affairs of the church. The legates, at the head of their own party, but with loftier pretensions, styled themselves—'*Sancta synodus Bononiensis*!'

Seventh and eighth sessions. As the time of the seventh and eighth sessions had been wasted in going through the necessary forms for transferring the council to Bologna, so the ninth session was spent in giving it confirmation after it had assembled there.

The tenth session, which reckons as the second at Bologna, scarcely deserves that name. However, during the residence in that town of the few bishops in the papal interest, some very important occurrences took place. The promise exacted by the emperor from the protestant princes at the second session to submit to the council may be reckoned as one. Although this was a false step on their part, yet it fortunately produced no bad consequence to their cause. Another was the struggle which took place between the pope and the emperor about the restoration of the council to Trent. A third was the protest of the emperor against the council of Bologna, and against the illegality of its translation from Trent. And, lastly, the imperial edict at the second diet of Augsburg, under the title of the Interim, providing a code of ecclesiastical laws until the long-wished for decision of a council could be obtained. Opposition was made to the establishment of this edict, which, to the disgrace of the existing pope and council, defined the faith of the emperor's German subjects agreeably to his will and pleasure. Julius III., immediately after his elevation to the papedom, being pressed by the emperor to bring back the council to Trent, issued his bull for that purpose. Nothing more can be said of the resumed meeting at Trent than that it was opened with the accustomed forms. The bishops present did not much exceed sixty, which was the greatest number that had yet attended. But this gave Julius little uneasiness, being too great a votary of pleasure to feel any concern about the affairs of either church or council.

The eleventh and twelfth sessions were trifled away with obtaining the assent of the bishops, of whom there were sixty-four only in attendance, a small increase since the tenth session, to the reopening of the council at Trent. The seizure of Parma, by Henry II. of France, gave rise to a quarrel between him and the pope, during which Henry not only did not send his prelates to the council, but ordered those who were at Rome to return home. Although neither would yield, the firmness of the king caused the pope to lower his tone and to moderate his language. In the mean time, the emperor was urgent with the Protestants, that they should appear, by their representatives, at Trent. With the fate of Huss before their eyes they could not but feel alarmed at the proposal. They, however, intimated that

they were willing to comply, provided they had a bona fide guarantee for their safety, and that, as the imperial safe conduct did not appear sufficient, one resembling that drawn up at the council of Basil should be procured; they further required that both the past and future decrees of the council should be regulated agreeably to the holy Scriptures. To a requisition of this nature the council gave assent, so far as related to the safe conduct; but totally objected to any other than an unconditional submission on their part. And when they drew up a passport, it was in such vague and indefinite language that the emperor insisted on more unequivocal words being adopted. Care, however, was taken to attach to the safe conduct a clause which, by limiting it to the existing occasion, showed the council to be too much influenced by feelings, such as those that consigned Huss and Jerome of Prague to the stake. Some puerile discussions now ensued about impanation, transubstantiation, the worship of the host, and the like; during which the fathers liberally imputed absurdities and contradictions to each other. The twelfth session closed with a discussion on the questions relating to the withholding the cup from the laity, and the communion of children. But nothing was then definitively settled on these points; lest, as the emperor said, it should offend the Protestants and prevent the appearance of their deputies.

In the thirteenth session the council lays down the doctrine of transubstantiation so authoritatively, that the person who presumes to deny that the body and blood, together with the soul and divinity of Christ, are actually —('verè, realiter, et substantialiter') present in the Eucharist, incurs the anathema of the church. It farther declares 'that the whole substance of the bread is changed into the substance of Christ's body, and the whole substance of the wine into the substance of his blood.' Another anathema is pronounced against those who deny this total change of both species. Other anathemas were levelled at the deniers of either containing the whole body of Christ, or that his body did not remain after communion; or that the Eucharist only wrought forgiveness of sins; or that the host should not receive the worship of *Latriæ* and be carried about in procession; or that it should not be carried to the sick; or that Christ is not really (*corporaliter*) eaten. Twelve anathemas in all were the sanction given to the maintenance of this doctrine. The Protestants commented severely on the palpable contradictions which presented themselves in the language of the first, second, and fourth, articles,—observing that, while the council declared the impossibility of suitably expressing the manner of Christ's real presence in the sacrament, it pronounced that manner to be *convenienter, propriè, et aptissime*, called transubstantiation! The council reserved some points connected with the corporeal presence and the doctrine of penance for future consideration; and, suo matu granted the plenary safe conduct to all who appeared before them. Ambassadors from some of the Protestant princes appeared at this session with confessions of faith; but, having refused to present them in the name of the pope, the matter was referred



to Rome for advice. In the answer returned to the legates they were directed not to give up the etiquette of presentation, as to do so would be to compromise the papal dignity; otherwise to get rid of their present difficulties by breaking off all intercourse with the opposite party. The Protestant divines consequently persevered in their refusal to attend the council; the reserved clause of granting security, as much as is in its power, having filled them with doubt and distrust in the sincerity of its professions.

The doctrines of penance and extreme unction were decreed in the fourteenth session, as was some modification of episcopal jurisdiction, which now bore somewhat of a reforming aspect. The presiding legate exerted all his influence to prevent the decree on these heads from being printed, or circulated, but in vain, as Germany got hold of the MSS., and the press soon supplied it with subject matter for censorial criticism. At this time the Protestants made fresh application for a safe conduct which should satisfy their scruples; and although the proposal was at first indignantly rejected, and indeed finally resulted in nothing, it elicited a document far more ample and explanatory than any former one. The Protestants, as might be expected, felt increased disgust at what was going on; while de Ranchin, a popish writer, declares that good Romanists abhorred it. The pope pressed his legates to dissolve the council with all possible despatch, but added, that even its suspension would be a relief to him; and this relief he now experienced at first for *two*, but afterwards continued for *ten* years.

There were but few prelates present at the sixteenth session; yet with these few was Paul obliged, after much trifling and delay, to reassemble the council. No attempt was made at reform during this session; while the death of Julius put off the hopes of any thing of the kind taking place to a future day. Marcellus II., having occupied the papal chair only for a few days, left it vacant for Paul IV., who next succeeded. One of Paul's earliest acts was to strengthen his own interest, by adding several new members to the college of cardinals. At the opening of the seventeenth session, being the first of the third convocation at Trent, the indices expurgatorii, came first under the review of the council. It was then alleged that the reigning emperors, during the first four general councils, prohibited the heretical works of their time to be read; that Martin V. condemned Wickliffe's works; that Leo prohibited Luther's writings; and why, therefore, should not the Tridentine fathers, with these precedents before their eyes, imitate their example?

Were it not to direct the reader's attention to the frivolous occupations in which the Tridentine fathers could engage during some of the sessions, the intervening ones, from the fourteenth to the twenty-first, might be passed over in this sketch. The most prominent feature of the eighteenth was the disputation which took place at it, between the Portuguese and Hungarian ambassadors about precedence! The nineteenth session commenced with a furious contest between the pope and the council, which afterwards settled into a disunion amongst its mem-

bers. The presentation of a remonstrance to the council, by the French ambassadors, was the only business transacted in it.

The twentieth session. The points relating to communion in both kinds, and the communion of children, which were left undecided at a former session, were now brought forward before eighty-eight bishops. The debate concluded, as might be expected, with a resolution, that he who communicated in one kind derived as much benefit as he who received in both. With the progress of affairs at Trent the pope was now not at all pleased; while his foreign relations kept him in constant perplexity. The ambassadors of the French and German princes now went hand in hand in their demand of the restoration of the cup to the laity, and in repeating their protestations against the dispensations granted for non-residence by the pope. This conduct of the ambassadors, and the report which had got abroad, that the French required divine service to be performed in their native tongue, that priests should marry, and that images should be removed from places of public worship, were a source of fresh trouble to the papal party. But when they heard the council called the pope's council, and not that of the universal church, and saw a hostile spirit manifesting itself towards them, they began to think of withdrawing from Trent altogether. Some of the bolder spirits kept up the debate on the use of the cup; and with it the session closed.

During the twenty-first session the controversy about residence was revived, with no better success than before. The pope being alarmed, lest a prime source of his revenue should be cut off, were the power of granting dispensations for non-residence withdrawn from him, directed the legates to soothe the opposition as much as possible; to discuss every subject fully and freely, but by all means to suppress the question about residence; and above all to endeavour to break up the council. On the question of half communion, they came to a decision: 'That although our Redeemer instituted the sacrament in two kinds, and gave it to his apostles; that it must, nevertheless, be allowed that the *whole* and *entire* Christ, and a true sacrament is received even under one kind only.' Therefore, that the faithful are not bound, as by a divine ordinance to receive the eucharist under both kinds. During the discussions both before, and at this session, great liberty was taken with the pope's authority. Some of the leading bishops were even for subjecting him to that of the council. But the legates, with consummate skill, shielded him from such a degradation. Some minor regulations about the union and division of parishes, &c., were made; but the session closed without the slightest attempt at reform.

The twenty-second session. Before this session commenced, a congregation was formed, by which subjects, afterwards to be submitted to the council, were entertained. The first proposed was the doctrine of the mass.

Nine canons were decreed, with an anathema to each, establishing the necessity of a perpetual sacrifice, and setting forth, that the sacrifice of the mass was propitiatory; 'not only for the sins of the living, but also for those who are de-

ceased in Christ, and are not yet fully purged.\*

The remainder of the twenty-second session exhibited the violence of party, beyond any former example, on the subject of the divine right of residence. After the question was brought forward again and again, it ultimately gave way to a symptom of reform, which now manifested itself. The French bishops endeavoured to revive the decree of the council of Constance, and to reject the authority of the pope; while Lainez, the general of the Jesuits, as obstinately defended it. Pius perceiving that the storm was gathering thick, and lowering over his head, feigned a desire to comply with the general feeling. He published reforming decrees; but they of course left untouched the power and privileges of the holy see. The French bishops, however, continued importunate; they memorialized both pope and council for a redress of grievances under thirty-four heads; including celibacy of the clergy, divine service in the vulgar tongue, and half communion; if they failed in their object, it was now to be ascribed to the firmness of the pontiff. He had the merit on this occasion, at least, of acting with manly candor, in boldly and publicly rejecting their petition. He did so, he said, on the ground, that, if concession were once made, reformation would begin.

Twenty-third and twenty-fourth sessions. In the first of these, holy orders were decreed to be a sacrament. A decree of reformation, consisting of several articles, was likewise passed on the subject of residence; but even that did not reach the root of the evil, as the questions relating to the institution of bishops, and the authority of the pope, were omitted. After decreeing marriage to be one of the seven sacraments, the council employed itself, in its twenty-fourth session, on frivolous questions relating to clandestine marriages, and the reformation of monasteries and nunneries: the duties of canonries, chapters, &c. The council was now precipitating fast to its termination, being composed principally of the Spanish and Italian bishops, after the retreat of the German and French ones, the latter of whom returned at the end of the last session. The pope having fallen sick, a resolution was come to by the council to require his immediate confirmation of its decrees.

The twenty-fifth or last session. The concluding session of the council was full of tumult and discord, occasioned by the desire of the Gallican bishops to make the episcopacy independent of the pope. They again maintained that it was established by divine right; while the legates contended that it was an emanation from

the chief bishop, who, as Christ's vicar, was authorized to regulate it according to his pleasure. This doctrine found in the Jesuit Lainez particularly a warm supporter. But the pope and his partisans wearied into a compliance with their wishes those who held out longest against them; such as the cardinal of Lorraine, and those French bishops who remained with him at Trent. The balance of 40,000 crowns due to the French monarch, and paid him by the pope at this critical period, contributed not a little, it has been thought, to this result.

Some difference of opinion having arisen on the article of purgatory, it was ultimately removed by the decision, that since the mass taught, that that sacrifice was expiatory for the dead, 'not yet fully purged of their sins,' the doctrine of purgatory was sufficiently settled. In the same decree, the holy bodies of martyrs and saints were held up as objects of respect, and the images of Christ, and the virgin Mary, of honor and veneration. Indulgences, the traffic in which was one of the prime causes of the Reformation, were handled with even less caution, the fathers having maintained that the church always possessed and exercised the power to confer them. As a few days only remained to dispose of other important points, which called for serious deliberation, such as related to fasts and meats, the Index Expurgatorius, the Missal, Breviary, Cereimonial, and the composition of a Catechism; they were referred to the pope, with a request that he would supply the wants and wishes of the universal church in these matters. In the last chapter, which professed to be on general reformation, duels were prohibited under a severe penalty.

One observation alone remains to be made, in conclusion, that neither was the church (in capite, vel in membris) reformed, nor justice done to the Protestants. The German Protestant divines, it is true, appeared manfully at Trent. They appealed to the ambassadors, and presented the legates with their Confession of Faith. But they were dismissed in silence, and their Confession, instead of being read to the council, was thrown aside; and yet this is doing justice to the Protestants! Can this be what is called, by a Romish bishop of the present day, a dispassionate examination of the Protestant cause by the council of Trent?

TRENTALS, *n. s.* *Fr. trente.*

*Trentals* or *trigintals* were a number of masses, to the tale of thirty, said on the same account, according to a certain order instituted by Saint Gregory.

*Ayliffe's Pavegon.*

TRENTON, a town of the United States, the capital of New Jersey, in Hunterdon county, is situated on the east bank of the Delaware, opposite the falls. It has city privileges, and contains a handsome state-house, a jail, two banks, an academy, two large cotton manufactories, and four houses of public worship, one for Episcopalians, one for Presbyterians, one for Methodists, and one for Friends; and between the city and Lamberton, which joins it on the south, there are two other houses of worship, one for Roman Catholics and one for Baptists. The city, together with Lamberton, contains at pre-

\* Before the sacrifice of the mass passed into a decree, one Ataide, a Portuguese bishop, contended that the arguments from Scripture in support of this doctrine were inconclusive, it being vain to seek in Scripture what Scripture did not contain; and, consequently, that those who built on any other foundation than tradition, built a castle in the air, and strengthened the cause of the heretics! The observation, it would appear, was not thrown away, as the Tridentine fathers abstained from making any appeal to Scripture: but contented themselves with declaring the mass to be a doctrine which accorded with apostolic tradition—*juxta apostolorum traditionem*.



sent about 600 houses, a number of which are elegant: the river is navigable as far as this place for sloops; but above the falls it is not navigable except for boats, which carry from 500 to 1000 bushels of wheat. At the foot of the falls there is a covered bridge across the river. Population 3003. Ten miles south-west of Princeton, thirty north-east of Philadelphia, and sixty south-west of New York.

**TREPAN**, *n. s. & v. a.* A snare; a stratum by which any one is ensnared: to ensnare. Skinner says that some English ships in queen Elizabeth's reign being invited, with great show of friendship, into Trapani, a part of Sicily, were there detained, and thence the word originated.

But what a thoughtless animal is man,  
How very active in his own *trepan*! *Roscommon.*

Can there be any thing of friendship in snares,  
hooks, and *trepan*s? *South.*

Those are but *trepanned* who are called to govern, being invested with authority, but bereaved of power, which is nothing else but to mock and betray them into a splendid and magisterial way of being ridiculous. *Id.*

**TREPA'N**, *n. s.* } *Fr. trepan.* An instrument by which churgeons cut round pieces out of the skull: *trephine* is a small *trepan* managed by one hand.

A putrid matter flowed forth her nostrils, of the same smell with that in *trepanning* the bone.

*Wiseman's Surgery.*

I shewed a *trepan* and *trephine*, and gave them liberty to try both upon a skull. *Id.*

Few recovered of those that were *trepanned*.

*Arbuthnot.*

**TREPIDATION**, *n. s.* *Lat. trepidatio.* The state of trembling, quivering, or terror.

The bow tortureth the string continually, and holdeth it in a continual *trepidation*.

*Bacon's Natural History.*

Moving of the earth brings harms and fears,

Men reckon what it did and meant;

But *trepidation* of the spheres,

Though greater far, is innocent. *Domie.*

His first action of note was in the battle of Lepanto; where the success of that great day, in such *trepidation* of the state, made every man meritorious.

*Wotton.*

They pass the planets seven, and pass the fixed,

And that crystalline sphere whose balance weighs

The *trepidation* talked, and that first moved. *Milton.*

**TRESPASS**, *v. n. & n. s.* } *Fr. trespasser.*

**TRES'PASSER**, *n. s.* } To transgress; offend: the noun substantives corresponding.

If they shall confess their *trespass*, which they *trespassed* against me, I will remember my covenant.

*Leviticus xxvi. 43.*

Your purposed low correction

Is such, as basest and the meanest wretches

For pilferings, and most common *trespass*,

Are punished with.

*Shakespeare. King Lear.*

If I come upon another's ground without his licence, or the licence of the law, I am a *trespasser*, for which the owner may have an action of *trespass* against me.

*Wotton.*

Will God incense his ire

For such a petty *trespass*?

*Milton.*

They not only contradict the general design and particular expresses of the gospel, but *trespass* against all logic.

*Norris.*

Their morals and oeconomy

Most perfectly they made agree:

Each virtue kept its proper bound,  
Nor *trespassed* on the other's ground. *Prior.*

**TRESS'ES**, *n. s.* } Without a singular. *Fr.*

**TRESS'ED**, *adj.* } *trese*; *Ital. treccia.* A knot or curl of hair: knotted or curled.

Nor this nor that so much doth make me mourn,  
But for the lad, whom long I loved so dear,  
Now loves a lass that all his love doth scorn,  
He, plunged in pain, his *tressed* locks doth tear.

*Spenser.*

Hung be the heavens with black, yield day to night!

Comets, importing change of times and states,  
Brandish your crystal *tresses* in the sky!

*Shakespeare.*

Her swelling breast

Naked met his, under the flowing gold

Of her loose *tresses* hid.

*Milton.*

Fair *tresses* man's imperial race ensnare,

And beauty draws us with a single hair. *Pope.*

**TRESTLE-TREES**, in ship-building, two strong bars of timber fixed horizontally on the opposite sides of the lower mast head, to support the frame of the top and the weight of the top mast. See **MAST**.

**TRET**, in commerce, is commonly four pounds, in every 104lbs. weight.

**TREVERIS**, *Treviris*, or Augusta Trevirorum, in ancient geography, a town of Gallia Belgica, the capital of the Treveri; now called Treves.

**TREVES**, or **TRIERS**, perhaps the most ancient, and one of the most celebrated, cities in Germany, the capital formerly of an electorate and archbishopric, now of a Prussian government in the province of the Lower Rhine. Its situation is picturesque, in the centre of a large valley lying along the Moselle, and open to the north-west and south-east, but confined on the other sides by two gentle eminences covered with vines. The length of the town is nearly a mile and a half; but as in this space there is a number of gardens the population is under 12,000. The streets are tolerably wide. The chief buildings are the elector's palace, now turned into barracks, and the church of Notre Dame, built about the year 1240, and affording a fine specimen of Gothic architecture. Another church, that of St. Simeon, is said to occupy the site of the building used by the Gauls for their public meetings, and by the Romans for a capitol or town-house. The cathedral is remarkable only for its altars, its marble gallery, and the uncommon size of the stones with which it is built. The environs of the town abound with gardens, and present prospects not unworthy of a comparison with Switzerland.

The Romans found a town on this site, and the inhabitants, whom they called Treviri, somewhat more improved than their rude neighbours. Under the name of Augusta Trevirorum it became one of their chief stations, and the capital of Gallia Belgica. After Constantine it was the residence of the prefect of all the Gauls, until the repeated inroads of the Germans necessitated the removal of the seat of administration to Arles. It was frequently a royal residence under the Franks, was subsequently received into the German empire, and continued during many centuries under an ecclesiastical government. It re-

mained in the hands of the French during twenty years, from 1794 to 1814.

Few towns are richer in Roman antiquities: the remains of the baths are extensive; but of the circus and amphitheatre there are hardly any traces. The piers of the bridge on the Moselle are the work of either the Romans or Gauls. The corn market at the west end of the town, adjacent to the river, is evidently a Roman work. The university was founded in 1454, and greatly extended in 1722. After 1794 it was converted by the French into a central school, to which its Prussian possessors have lately given the name of gymnasium. Its classes are held in a pile of building of great size, in one of the wings of which is a library. There is here, under the direction of a society, a good collection of antiques and natural curiosities. Twenty-two miles E.N.E. of Luxemburg, and seventy west by south of Mentz.

TREVES, a small town in the west of France, department of the Maine and Loire, situated on the Loire, about nine miles north-west of Saumur.

TREVETHIN, a parish of England, in Monmouthshire, six miles and a half W. N. W. of Usk. Population 2423.

TREVI, a small town in the central part of Italy, in the states of the church, situated on a mountain in the delegation of Spoleto. It was anciently called Mutusæ, and afterwards Tribula.

TREVICO, a small inland town of Italy, in the central part of the kingdom of Naples, in the Principato Ultra, with 2500 inhabitants.

TREVIÈRES, a small town in the north of France, department of Calvados, with 1000 inhabitants. This is a pasturage district, and exports large quantities of excellent butter. Nine miles west of Bayeux, and twenty-six north-west of Caen.

TREVISANI (Francis), an eminent Italian painter, born at Trieste, in 1656. He married a noble Venetian lady, and settled at Rome, where he acquired great fame, for history and landscapes. He died in 1746.

TREVISI (Jerome), a celebrated Italian painter of history and portraits, born at Treviso, in 1508. He became painter to Henry VIII. king of England; who appointed him engineer at the siege of Boulogne, where he was killed, in 1544.

TREVISO, a well built town of Austrian Italy, capital of the delegation of the same name, situated on the rivers Sile and Piavesella, at their confluence. It is the see of a bishop, and contains 12,000 inhabitants.

TREVOUX, an ancient town of France, in the department of the Ain, and ci-devant province of Bresse. It has an hospital, and a printing office, famous for printing the Jesuit Literary Journals, entitled *Memoires de Trevoux*; and the *Dictionnaire Universel*. Trevoux is seated on the Saone, twelve miles north of Lyons, and 188 south by east of Paris. Long. 4° 51' E., lat. 45° 57' N.

TREY, *n. s.* Fr. *trois*; Lat. *tres*. A three at cards.

White-handed mistress one sweet word with thee. —Honey, milk, and sugar, there is three.

—Nay then, two *treys*; metheglin, wort, and malmsey. *Shakespeare. Love's Labour Lost.*

TRIABLE, *adj.* From *try*. Capable of trial, judicially or otherwise; possible to be experimented.

For the more easy understanding of the experiments *triable* by our engine, I insinuated that notion, by which all of them will prove explicable. *Boyle.*

No one should be admitted to a bishop's chancellorship without good knowledge in the civil and canon laws, since divers causes *triable* in the spiritual court are of weight. *Ayliffe.*

TRIAL, *n. s.* From *try*. Test; examination; judicial process or examination; temptation test of virtue; state of being tried.

Others had *trial* of cruel mockings and scourgings. *Hebrews.*

He hath resisted law,  
And therefore law shall scorn him further *trial*  
Than the severity of publick power.

*Shakespeare. Coriolanus.*  
Good shepherd, tell this youth what 'tis to love.  
—It is to be all made of sighs and tears;  
It is to be made all of faith and service,  
All humbleness, all patience and impatience;  
All purity, all *trial*, all observance.

*Id. As You Like It.*  
Skilful gardeners make *trial* of the seeds by putting them into water gently boiled; and, if good, they will sprout within half an hour.

*Bacon's Natural History.*  
*Trial* is used in law for the examination of all causes, civil or criminal, according to the laws of our realm: the *trial* is the issue, which is tried upon the inditement, not the inditement itself. *Cowell.*

There is a mixed kind of evidence relating both to the senses and understanding, depending upon our own observation and repeated *trials* of the issues and events of actions or things, called experience. *Wilkins.*

Lest our *trial*, when least sought,  
May find us both perhaps far less prepared,  
The willing I go. *Milton's Paradise Lost.*

They shall come upon their *trial*, have all their actions strictly examined. *Nelson.*

Every station is exposed to some *trials*, either temptations that provoke our appetites, or disquiet our fears. *Rogers.*

TRIAL, in law, the examination of a cause according to the laws of the land before a proper judge; or it is the manner and order observed in the hearing and determining of causes. Trials are either civil or criminal.

TRIALS, CIVIL. The species of trials in civil cases are seven:—By record; by inspection, or examination; by certificate; by witnesses; by wager of battel; by wager of law; and by jury. The first six are only had in certain special or eccentric cases, where the trial by jury would not be so proper or effectual. See *LAW*.

TRIALLIS, in botany, a genus of plants, of the class *decandria*, and order of *monogynia*, ranking in the natural method under the thirty-eighth order, *tricocceæ*.

TRIANDRIA (from *τρεῖς*, three, *ανδρ*, a man or husband), the name of the third class in Linnæus's sexual system, consisting of plants with hermaphrodite flowers, which have three stamina or male organs. See *BOTANY*.

TRIANGLE, *n. s.* } Fr. *triangle*; Lat. *tri-*  
TRIANGULAR, *adj.* } *angulum*. A figure of three angles: having three angles.



The frame thereof seemed partly circular,  
And part *triangular*; O work divine!  
These two the first and last proportions are.

Spenser.

The three angles of a *triangle* are equal to two right ones.

Locke.

Though a round figure be most capacious for the honey, and convenient for the bee; yet did she not chuse that, because there must have been *triangular* spaces left void.

Ray.

TRIANGLE, in geometry, a figure of three sides and three angles.

TRIANGULAR COMPASSES are such as have three legs or feet, by which any triangle, or three points, may be taken off at once.

TRIANTHEMA, in botany, horse purslane; a genus of plants, of the class decandria, and order of monogynia, and in the natural method ranking in the thirteenth order, succulenta.

TRIARI, the most honorable order of Roman soldiers, who were excused from the ordinary watches; yet, when placed opposite to the equites, they were obliged to have an eye over them.

TRIBALLI, a people of Thrace, or Lower Mœlia. They were conquered by Philip II. of Macedon, and afterwards warred against the Romans.

TRIBE, *n. s.* Lat. *tribus*, said to be from *trev*, British; *b* and *v* being labials of promiscuous use in the ancient British. *Trev* from *tir ef*, his lands, is supposed by Mr. Rowland to be Celtic, and used before the Romans had any thing to do with the British government. 'This notion,' says Dr. Johnson, 'will not be much recommended, when it is told that he derives centurie from *trev*, supposing it be the same with our centrev, importing a hundred trevs or tribes.' A distinct body of people as divided by family, fortune, or any other characteristic.

If the heads of the *tribes* can be taken off, and the mislead multitude will see their error, such extent of mercy is honourable.

Bacon's Advice to Villiers.

I ha' been writing all this night unto all the *tribes* And centuries for their voices, to help Catiline In his election.

Ben Jonson.

Who now shall rear you to the sun, or rank Your *tribes*, and water from the ambrosial fount?

Milton.

Folly and vice are easy to describe,  
The common subjects of our scribbling *tribe*.

Roscommon.

Teach straggling mountaineers, for publick good,  
To rank in *tribes*, and quit the savage wood,  
Houses to build.

Tate.

I congratulate my country upon the increase of this happy *tribe* of men, since, by the present parliament, the race of freeholders is spreading into the remotest corners.

Addison.

TRIBULATION, *n. s.* Fr. *tribulation*. Persecution; distress; vexation.

*Tribulation* being present causeth sorrow, and being imminent breedeth fear.

Hooker.

The just shall dwell,  
And, after all their *tribulations* long,  
See golden days fruitful of golden deeds.

Milton.

Our church taught us to pray, that God would, not only in all time of our *tribulation*, but in all time of our wealth, deliver us.

Atterbury.

TRIBULUM, in antiquity. See THRASHING.

TRIBULUS, in botany, caltrops; a genus of plants in the class decandria, and order of monogynia; and, in the natural method, ranking under the fourteenth order, gruinale.

TRIBUNAL, *n. s.* Lat. and Fr. *tribunal*. The seat of a judge.

I' th' market place, on a *tribunal* silvered,  
Cleopatra and himself in chairs of gold  
Were publickly enthroned.

Shakspeare. Antony and Cleopatra

Summoning arch-angels to proclaim  
Thy dread *tribunal*.

Milton.

There is a necessity of standing at his *tribunal*, who is infinitely wise and just.

Grew's Cosmologia.

He, who for our sakes stood before an earthly *tribunal*, might therefore be constituted judge of the whole world.

Nelson.

TRIBUNE, *n. s.* } Lat. *tribun*, *tribunus*.

TRIBUN'TIAL, *adj.* } An officer of Rome

TRIBUN'TIOUS. } chosen by the people: relating to or becoming a tribune.

These are the *tribunes* of the people,  
The tongues o' the common mouth: I do despise them.

Shakspeare.

Let them not come in multitudes, or in a *tribunitious* manner; for that is to clamour counsels, not to inform.

Bacon.

Oh happy ages of our ancestors!  
Beneath the kings and *tribunitial* powers,  
One jail did all their criminals restrain.

Dryden's Juvenal.

A TRIBUNE, among the ancient Romans, was a magistrate chosen out of the commons, to protect them against the oppressions of the great, and to defend the liberty of the people against the attempts of the senate and consuls. The *tribunes* of the people were first established A. U. C. 259. The first design of their creation was to shelter the people from the cruelty of usurers, and to engage them to quit the Aventine Mount, whither they had retired in displeasure. Their number at first was but two; but the next year, under the consulate of A. Posthumius Aruncius and Cassius Viscellinus, there were three more added: and this number of five was afterwards increased by L. Trebonius to ten.

TRIBUNE, MILITARY, an officer in the Roman army, commander-in-chief over a body of forces, particularly the division of a legion; much the same with our colonel.

TRIBUTE, *n. s.* } Fr. *tribut*; Lat.

TRIBUTARY, *adj* & *n. s.* } *tributum*. Payment made in acknowledgment; subjection: paying such acknowledgment; paid in tribute: he who pays tribute.

All the people therein shall be *tributaries* unto thee, and serve thee.

Deut. xx. 11.

They that received tribute money said, Doth not your master pay tribute?

Matthew xvii. 2.

Thenceforth this land was *tributary* made  
To ambitious Rome, and did their rule obey,  
Till Arthur all that reckoning did defray:  
Yet oft the Briton kings against them strongly  
swayed.

Spenser.

Whilst Malvern, king of hills, fair Severn overlooks,  
Attended on in state with *tributary* brooks.

Drayton.

She receives  
As tribute warmth and light.

Milton.

The two great empires of the world I know ;  
 And, since the earth none larger does afford,  
 This Charles is some poor tributary lord. *Dryden.*  
 O'er Judah's king ten thousand tyrants reign,  
 Legions of lust, and various powers of ill  
 Insult the master's tributary will. *Prior.*

Around his throne the sea-born brothers stood,  
 That swell with tributary urns his flood. *Pope.*

TRICE, *n. s.* *Fr. trait*, corrupted by pronunciation. A short time ; an instant ; a stroke ; used familiarly.

If they get never so great spoil at any time, the same they waste in a *trice*, as naturally delighting in spoil, though it do themselves no good. *Spenser.*

He could raise scruples dark and nice,  
 And after solve them in a *trice*. *Hudibras.*

It seems incredible at first, that all the blood in our bodies should circulate in a *trice*, in a very few minutes ; but it would be more surprising if we knew the short periods of the great circulation of water.

*Bentley's Sermons.*

So when the war had raised a storm,  
 I've seen a snake in human form,  
 All stained with infamy and vice,  
 Leap from the dunghill in a *trice*. *Swift.*

A man shall make his fortune in a *trice*,  
 If blessed with pliant, though but slender sense,  
 Feigned modesty, and real impudence. *Young.*

TRICHECUS, the walrus, a genus of aquatic animals, belonging to the class of mammalia, and order of bruta. This genus has no fore teeth, when full grown ; has two great tusks in the upper jaw, which point downwards ; has grinders on each side in both jaws, which are composed of furrowed bones. The body is oblong ; the lips are doubled ; and the hind legs are stretched backwards, and, as it were, bound together, forming a kind of tail fitted for swimming. There are three species ; viz. 1. *T. dagon*, the Indian walrus, is distinguished by the tusks, which extend out of the mouth from the upper jaw, being placed near each other. It inhabits the sea lying between the Cape of Good Hope and the Philippine Islands. This animal, so far as can be known, resembles the morse very much ; the head is, however, more lengthened and narrower ; the nostrils large, and placed higher ; there are two tusks in the under jaw, but those in the upper jaw are placed near each other, bent outwards, and resemble cutting teeth, only that they are nearly six inches long ; there are four grinders on each side in the upper jaw, and three in the lower ; these last are distant from the tusks, and are broader than those of the morse ; the female has two teats on the breast ; the chin has a bristly beard ; the ears are short ; the feet broad ; and the legs so short that the belly trails on the ground. When full grown, the animal is six ells in length ; the male being rather larger than the female, which has breasts like a woman : it feeds on a green sea moss or weed, which grows near the shore. The figure, manners, and history, of this animal, are very imperfectly known ; but we are informed that its flesh eats like beef. 2. *T. manatus*, fish tailed walrus, manati, or sea cow, has no tusks, and no hind feet. Of this species there are two varieties ; viz. i. *T. manatus australis*, or lamantin ; inhabits the African and American seas, particularly near the mouths of rivers, which

they frequently enter, seldom going far from the shore. The lamantin varies in size from eight to seventeen feet long, is six or seven in circumference, and from 500 to 800 lbs. weight ; the skin is of a dark or black ash color ; there are nine square shaped grinders on each side in each jaw, which are covered with a glassy crust of enamel ; the back bone has fifty joints or vertebrae : it is a thick clumsy animal, having no properly distinct neck, as the body continues almost of an equal thickness to the head. The female has two teats placed near the arm pits. These varieties differ considerably in size. This animal is often tamed by the native inhabitants of America ; and it delights in music ; hence it is probably the delphinus or dolphin of the ancients ; and some believe that what has been written concerning mermaids and sirens must be referred to this animal. It has a voracious appetite, and is perpetually eating ; it is monogamous, or lives in families of one male, one female, a half grown, and a very small young one. It copulates in the spring. When pasturing on the aquatic plants, the back is often above water ; and, as the skin is full of a species of louse, numbers of sea fowls perch on them, to pick out the insects. They bellow like bulls ; their sight is very weak, but their hearing extremely acute ; the fore feet are palmated and fin-shaped, almost like those of a sea turtle ; and, instead of hind feet, they have a horizontal tail ; they have no external ears : the nostrils are distinct, and at a distance from each other ; the females have two teats about the breast ; the upper lip is full of sharp, prickly, rigid bristles. This animal has great affinity to the whale and seal tribes. The flesh is very good eating. ii. *T. manatus borealis*, the whale-tailed manati, inhabits the north-west coast of America, the north-east of Asia, and the islands which lie between these two coasts. This animal very often enters the mouths of the rivers ; is sometimes twenty-three feet long, and weighs 8000 lbs. ; the skin, while wet, is of a brown color, but becomes black when dry. Instead of grinders, this species has, on each side of its jaw, a large rugged bone. The back bone has sixty vertebrae or joints ; the body is very clumsy, and much deformed ; its circumference at the shoulders is twelve feet, at the belly twenty, and near the tail only four ; the neck is nearly seven feet round, and the head only thirty-one inches. They live perpetually in the water, and frequent the edges of the shores ; and in calm weather swim in droves near the mouths of rivers ; in the time of the flood they come so near the land that a person may stroke them with his hand ; if hurt, they swim out to sea, but presently return again. The females oblige the young to swim before them, while the other old ones surround, and, as it were, guard them on all sides. The affection between the male and female is very great ; for, if she is attacked, he will defend her to the utmost ; and, if she is killed, will follow her corpse to the very shore, and swim for some days near the place it has been landed at. They copulate in the spring, in the same manner as the human kind. Steller thinks they go with young about a year ; it is certain that they



bring but one young at a time. They are vastly voracious and gluttonous; and feed not only on the fuci that grow in the sea, but such as are flung on the edges of the shore. During their meals, they are so intent on their food that any one may go among them and choose which he likes best. Peter Martyr gives an instance of one that lived in a lake of Hispaniola for twenty-five years, and was so tame as to come to the edge of the shore on being called; and would even perform the part of a ferry, and carry several people at a time on its back to the opposite shore. Their back and their sides are generally above water. They continue in the Kamschatchan and American seas the whole year; but in winter are very lean, so that one may count their ribs. They are taken by harpoons fastened to a strong chord; and, after they are struck, it requires the united force of thirty men to draw them on shore. Sometimes, when they are transfixed, they will lay hold of the rocks with their paws, and stick so fast as to leave the skin behind before they can be forced off. When a manati is struck, its companions swim to its assistance; some will attempt to overturn the boat by getting under it; others will press down the rope, in order to break it; and others will strike at the harpoon with their tails, with a view of getting it out, in which they often succeed. They have not any voice; but make a noise by hard breathing like the snorting of a horse. The skin is very thick, black, and full of inequalities, like the bark of oak, and so hard as scarcely to be cut with an axe, and has no hair on it; beneath is a thick blubber, which tastes like oil of almonds. The flesh is coarser than beef, and will not soon putrefy. The young ones taste like veal. The skin is used for shoes, and for covering the sides of boats. 3. *T. rosomarus*, the morse, or sea horse, has a round head; small mouth; very thick lips, covered above and below with pellucid bristles as thick as straw; small fiery eyes; two small orifices instead of ears; short neck; body thick in the middle, tapering towards the tail; skin thick, wrinkled, with short brownish hairs thinly dispersed; legs short, five toes on each, all connected by webs, and small nails on each; the hind feet are very broad; each leg loosely articulated; the hind legs generally extended on a line with the body; the tail is very short; penis long; length of the animal from nose to tail sometimes eighteen feet, and ten or twelve round in the thickest part; the teeth have been sometimes found of the weight of thirty pounds each. Teeth of this size are only found on the coast of the Icy Sea, where the animals are seldom molested, and have time to attain their full growth. They inhabit the coast of Spitzbergen, Nova Zembla, Hudson's Bay, and the Gulf of St. Lawrence; and the Icy Sea, as far as Cape Tschuktschi: They are gregarious; in some places appearing in herds of hundreds. They are shy, and avoid places which are much haunted by mankind; but are very fierce. If wounded in the water, they attempt to sink the boat, either by rising under it, or by striking their great teeth into the sides; they roar very loud, and will follow the boat till it gets out of sight. Numbers of them are often

seen sleeping on an island of ice; if awaked, they fling themselves with great impetuosity into the sea; at which time it is dangerous to approach the ice, lest they should tumble into the boat and upset it. They do not go upon the land till the coast is clear of ice. They are killed for the sake of their oil, one walrus producing about half a ton. The knowledge of this chase is of great antiquity; Ochter the Norwegian, about A. D. 890, made a report of it to king Alfred, having, as he says, made the voyage beyond Norway, for the more commodious of fishing of horse whales, which have in their teeth bones of great price and excellency, whereof he brought some at his return unto the king. In fact, it was in the northern world, in early times, the substitute for ivory, being very white and very hard. Their skins, Ochter says, were good to cut into cables. M. de Buffon says he has seen braces for coaches made of the skin, which were both strong and elastic. They bring one, or at most two, young at a time; they feed on sea herbs and fish; also on shells, which they dig out of the sand with their teeth; they are said also to make use of their teeth to ascend rocks or pieces of ice, fastening them to the cracks, and drawing their bodies up by that means. Besides mankind, they seem to have no other enemy than the white bear, with whom they have terrible combats; but generally come off victorious, by means of their great teeth.

TRICHILIA, in botany, a genus of plants, in the class decandria, and order of monogynia; and in the natural method ranking in the twenty-third order, trihilate.

TRICHINOPOLY, a fortified town in the Southern Carnatic, situated on the south side of the Caverry, 107 miles south-east from Pondicherry. The country round Trichinopoly, although not so highly cultivated as Tanjore, is rendered productive of rice by the vicinity of that branch of the Caverry named the Coleroon. The size and situation of the city, the abundance of subsistence in the neighbourhood, and the long residence of Mahommed Ali's second son Ameer ul Omrah, rendered Trichinopoly the favorite residence of the Mahometans in the Southern Carnatic. On the adjacent island of Seringham are two magnificent pagodas, which have long commanded the veneration of the Hindoos. This city was the capital of a Hindoo principality until 1736, when Chunda Saheb acquired it by treachery, but lost it to the Mahrattas in 1741. From these depredators it was taken in 1743 by Nizam ul Muluck, who, on his departure to the Deccan, delegated Anwar ud Deen to administer the affairs of the Carnatic; and on his death, in 1749, it devolved by inheritance to his second son the nabob Mahommed Ali. It in consequence sustained a memorable siege by the French and their allies, which lasted from 1751 until 1755, in the course of which the most brilliant exploits were performed on both sides; but the extraordinary military talents displayed by Lawrence, Clive, Kilpatrick, Dalton, and other officers, and the heroic valor of the British grenadiers, preserved the city and established the British candidate on the throne of the Carnatic. At present Trichinopoly is the capital of one of

the districts, into which the territory under the Madras presidency has been subdivided; but up to 1812 had not been permanently assessed for the revenue. Travelling distance from Madras 268 miles; from Seringapatam 205.

**TRICHOMANES**, in botany, a genus of plants belonging to the class of cryptogamia, and order of silices. The parts of fructification are solitary, and terminated by a style like a bristle, on the very edge of the leaf. There are thirteen species; of which two are natives of Britain, the *pixidiferum* and *tunbrigense*. 1. *T. pixidiferum*, the cup trichomanes, has sub-bipinnated leaves, the pinnæ being alternate, close-lobed, and linear. It is found among stones in wet grounds in England. 2. *T. Tunbrigense*, the Tunbridge trichomanes, has pinnated leaves, the pinnæ being oblong, dichotomous, decurrent, and dentated. It is found in the fissures of moist rocks in Wales, and in many rocky places in Scotland.

**TRICHOTOMY**, *n. s.* Gr. *τριχοτομew*. Division into three parts.

Some disturb the order of nature by dichotomies, *trichotomies*, sevens, twelves; let the subject, with the design you have in view, determine the number of parts into which you divide it. *Watts.*

**TRICHOSANTHES**, in botany, serpent cucumber, a genus of plants belonging to the class of monœcia, and order of syngenesia; and in the natural system ranging under the thirty-fourth order, cucurbitacæ. There are four species; only one of which is cultivated in the British gardens. *T. anguina*, the snake-gourd, which is a native of China, an annual, and of the cucumber tribe.

**TRICHOSTEMA**, in botany, a genus of plants, in the class didynamia, and in the order of gymnospermia; and in the natural method ranking in the forty-second order, verticillatæ.

TRICK', *n. s., v. a., & v. n.* Sax. *trugan*;  
TRICK'ER, *n. s.* } Belgic *treck*.  
TRICK'ING, } A sly fraud, or  
TRICK'ISH, *adj.* } artifice; juggle;  
TRICK'SY. } antick; habit:

to trick is to cheat; impose upon; also (Goth. *truga, draga*) to dress; decorate: as a verb neuter live by fraud: a tricker, or trigger, is the catch of a gun-lock. See TRIGGER. Tricking, dress; ornament: trickish, artful; knavish; wanton: tricksy means pretty; attractive.

Their heads are *trickt* with tassels and flowers. *Sandys.*

Gather the lowest, and leaving the top,  
Shall teach thee a *trick* for to double thy crop. *Tusser.*

The *trick* of that voice I well remember. *Shakspeare.*

Suspicion shall be stuck full of eyes:  
For treason is but trusted like a fox,  
Who ne'er so tame, so cherished and locked up,  
Will have a wild *trick* of his ancestors. *Id.*

The fool hath planted in his memory  
An army of good words: and I do know  
A many fools that stand in better place  
Garnished like him, that for a *tricksy* word  
Defy the matter. *Id. Merchant of Venice.*

Horridly *trickt*  
With blood of fathers, mothers, daughters, sons,  
Baked and impasted with the parching fires. *Shakspeare.*

Sir Thomas Moore said, that a *trick* of law had no less power than the wheel of fortune, to lift men up, or cast them down. *Raleigh.*

And *trick* them up in knotted curls anew. *Drayton.*

They turned the imposture upon the king, and gave out that to defeat the true inheritor he had *tricked* up a boy in the likeness of Edward Plantagenet. *Bacon's Henry VII.*

This pillar is but a medley, or a mass of all the precedent ornaments, making a new kind by stealth; and though the most richly *tricked*, yet the poorest in this, that he is a borrower of all his beauty. *Wotton's Architecture.*

So sinks the day-star in the ocean bed,  
And yet anon repairs his drooping head,  
And *tricks* his beams, and with new-spangled ore  
Flames in the forehead of the morning sky. *Milton.*

As a goose  
In death contracts his talons close;  
So did the knight, and with one claw  
The *tricker* of his pistol draw. *Hudibras.*

Pulling aside the *tricker*, we observed that the force of the spring of the lock was not sensibly abated by the absence of the air. *Boyle.*

I entertain you with somewhat more worthy than the stale exploded *trick* of fulsome panegyrics. *Dryden.*

Love is an airy good opinion makes,  
That *tricks* and dresses up the gaudy dream. *Id.*  
Thus they jog on, still *tricking*, never thriving,  
And murdering plays, which still they call reviving. *Id.*

People lavish it profusely in *tricking* up their children in fine cloaths, and yet starve their minds. *Locke.*

A reverend prelate stopped his coach and six,  
To laugh a little at our Andrew's *tricks*. *Prior.*  
It is impossible that the whole world should thus conspire to cheat themselves, to put a delusion on mankind, and *trick* themselves into belief. *Stephens's Sermons.*

All he says is in a loose, slippery, and *trickish* way of reasoning. *Pope.*

And now, as oft in some distempered state,  
On one nice *trick* depends the general fate. *Id.*

TRIC'KLE, *v. n.* Dan. and Swed. *trilla*;  
Teut. *trieflan*—Thomson. To fall in drops; rill in a slender stream.

He, pricked with pride,  
Forth spurred fast; adown his courser's side  
The red blood, *trickling*, stained the way. *Spenser.*

Some noises help sleep; as, the blowing of the wind, and *trickling* of water, as moving in the spirits a gentle attention, which stilleth the discursive motion. *Bacon.*

He lay stretched along, his eyes fixt upward,  
And ever and anon a silent tear  
Stole down and *trickled* from his hoary head. *Dryden.*

The emblems of honour wrought on the front in the brittle materials above-mentioned, *trickled* away under the first impressions of the heat. *Addison's Freeholder.*

How fluent nonsense *trickles* from his tongue. *Pope.*

TRICOCCÆ, *τρεις*, three, and *κοκκος*, a grain, the name of the thirty-eighth order in Linnæus's fragments of a natural method, consisting of plants with a single three-cornered capsule, having three cells, or internal divisions, each containing a single seed. See BOTANY.

TRICORII, an ancient nation of Gaul, wh



inhabited the country since called Dauphine.  
Liv. 21. c. 31.

**TRIDAX**, in botany, trailing star wort of Vera Cruz, a genus of plants in the class of syngenesia, and order of polygamia superflua; and, according to the natural method, ranking in the thirty-second order, papilionaceæ. It is a native of Vera Cruz, and has flowers in the form of butterflies.

**TRIDENT**, *n. s.* Fr. *trident*; Lat. *tridens*. A three-forked sceptre of Neptune.

His nature is too noble for the world:  
He would not flatter Neptune for his trident.

*Shakespeare.*

Canst thou with figs pierce him to the quick?  
Or in his skull thy barbed trident stick?

*Sandys on Job.*

He lets them wear their saphire crowns,  
And wield their little tridents.

*Milton.*

**TRIDENTUM**, an ancient town of Gallia Cisalpina, now called Trent. See **TRENT**.

**TRIEN'NIAL**, *adj.* Fr. *triennal*; Lat. *triennus*. Lasting three years.

I passed the bill for triennial parliaments.

*King Charles.*

Richard the Third, though he came in by blood,  
yet the short time of his triennial reign he was without any, and proved one of my best lawgivers.

*Howell's England's Tears.*

**TRIENNIAL PARLIAMENTS** were established at the revolution in 1688; but were abolished, and the septennial parliaments enacted, upon the extinction of the rebellion in 1715.

**TRIENS**, in antiquity, a copper money of the value of one-third of an as, which on one side bore a Janus's head, and on the other a water-rat.

**TRIENTALIS**, chickweed winter-green, in botany, a genus of plants belonging to the class of heptandria, and order of monogynia; and in the natural system ranging under the twentieth order, rotaceæ. The calyx is heptaphyllous; the corolla is equal and plane, and is divided into seven segments; the berry is unilocular and dry. There is only one species, viz.—*T. Europæa*, which is indigenous, and the only genus of heptandria that is so. The stalk is single, five or six inches high, terminated with five, six, or seven oval pointed leaves; from the centre of which arise on long foot-stalks commonly two white starry flowers, each generally consisting of seven oval and equal petals, succeeded by a globular dry berry, covered with a thin white rind, having one cell, and containing several angular seeds.

**TRIER**. From *try*. One who tries experimentally; test.

You were used

To say, extremity was the trier of spirits;  
That common chances common men could bear.

*Shakespeare.*

Courts of justice are bound to take notice of acts of parliament, and whether they are truly pleaded or not; and therefore they are the triers of them. *Hale.*

The ingenious triers of the German experiment found that their glass vessel was lighter when the air had been drawn out than before, by an ounce and very near a third.

*Boyle.*

There should be certain triers or examiners appointed by the state to inspect the genius of every particular boy.

*Spectator.*

**TRIESTE**, a province of the Austrian empire containing the southern half of the kingdom of Illyria, and bordering on the Adriatic, Croatia, and the government of Laybach. Its territorial extent is 5020 square miles, and its population 540,000. The majority are Sclavonians, but there are among them many Italians, Germans, and Jews. The surface is for the most part hilly, and the soil is, with the exception of some very fertile valleys, chalky, dry, stony, and requires a very toilsome cultivation. The Save forms the northern boundary. The products of this province are vines, olives, silk, and in general the fruits of the south of Europe. The sheep are commonly of a good breed; but of corn, the quantity raised is not large. The coast affords extensive fisheries, and the climate admits of making salt by evaporating the water of the sea. The province is divided into the four circles of Trieste, Goritz, Fiume, and Carlstadt.

**TRIESTE**, a circle of the government of the same name, in Illyria. It contains 1440 square miles, with 176,000 inhabitants, and is divided into the four arrondissements of Trieste, Duins, Capo d'Istria, and Rovigno.

**TRIESTE**, a large and thriving sea-port of Austria, the capital of a district in the Illyrian territory. It is situated near the north-west extremity of the gulf of Venice, and is divided into the Old and New Town. The former stands on a hill, with a castle on the top; the New Town called also Theresienstadt, is on level ground, intersected by a canal, and built with neatness and regularity. The population, at present about 40,000, is on the increase. Trieste has good streets, and a number of commodious buildings, but few that are large or striking, except the cathedral, the church that formerly belonged to the Jesuits, and the theatre: the cathedral is an ancient, the theatre a modern building. This is almost the only sea-port for a very large tract of the south of Germany, the Illyrian provinces, and part of the Sclavonian; in short, for the long tract of Austrian territory extending from Tyrol to Transylvania. Venice, though entitled since 1814 to all the privileges of an Austrian sea-port, does not, from its distance, interfere with its trade; while Fiume is a small place, less advantageously situated. Among the exports from Trieste are the produce of the mines of Idria, and even of Hungary; linen, tobacco, woollens from different parts of the Austrian dominions; also printed cottons from Switzerland. The imports consist of cotton, wool, hides, raisins, silks, rice, oil from the Levant; wheat chiefly from Odessa; sugar, coffee, and other tropical products from the West Indies and Brasil. The trade of the Adriatic is conducted in barks of twenty, thirty, or forty tons: these and much larger vessels enter with ease the inlet, in the form of a canal, which leads from the sea into the town, and has on each side quays for vessels to load and unload. The harbour dues at Trieste are inconsiderable. Each of the trading nations of Europe has a consul here. The quantity of goods conveyed by land to and from Trieste is very considerable; this conveyance is tedious, but not expensive. Ship-building is carried on with activity, and the sugar refining, the

making of white lead, soap, leather, paper, and wax. At some distance from the town are salt-works, or pools for the reception of sea-water, which in the summer months is evaporated by the heat of the sun. Coal is obtained at a few miles distance. Trieste is built near the site of the Roman Tergeste; and there are some remains of the aqueduct, partly subterranean, which brought water to it from a distance of six miles. This town fell into the possession of Austria in 1382. In the fifteenth century it was a small place without trade; in 1719 it was made a free port by the Austrian government; in 1753 the harbour was enlarged, and a mole formed to shelter it from the south: it is open, however, to the Bora, an impetuous north-east wind, which, did it not blow off the land, would be dangerous to the shipping. The territory belonging to the town comprises 170 square miles, and a population of nearly 9000. Trieste belonged to France during five years, from 1809 to 1814. 212 miles S. S. W. of Vienna, and sixty-nine E. N. E. of Venice.

**TRIFALLOW**, *v. a.* Lat. *tres* and Sax. *realga*, a harrow. To plow land the third time before sowing.

The beginning of August is the time of *trifallowing*, or last plowing before they sow their wheat.

Mortimer.

**TRIFISTULARY**, *adj.* Lat. *tres* and *fistula*. Having three pipes.

Many of that species whose *trifistulary* bill or crany we have beheld.

Browne's *Vulgar Errors*.

**TRIFLE**, *v. n.*, *v. a.*, & Belgic, *tryselen*.  
**TRIFLER**, *n. s.* [*n. s.*] To act or talk with-  
**TRIFLING**, *adj.* out weight or dig-  
**TRIFLINGLY**, *adv.* nity; act or talk  
 with levity or folly; mock; be of no importance: to make unimportant (obsolete): a thing of no moment: a trifler is one who acts with levity or folly: the adjective and adverb following correspond with trifle.

'Tis hard for every *trifling* debt of two shillings to be driven to law.

Spenser.

When they say that we ought to abrogate such popish ceremonies as are unprofitable, or else might have other more profitable in their stead, they *trifle* and they beat the air about nothing which toucheth us.

Hooker.

Do not believe,  
 That, from the sense of all civility,  
 I thus would play and *trifle* with your reverence.

Shakspeare.

The instruments of darkness tell us truths;

Win us with honest *trifles*, to betray us

In deep consequence.

*Id.* Macbeth.

Threescore and ten I can remember well,  
 Within the volume of which time I've seen  
 Hours dreadful and things strange; but this sore  
 night

Hath *trifled* former knowings.

*Id.*

A man cannot tell whether Apollos or Albert Durer were the more *triflers*, whereon the one would make a personage by geometrical proportions, the other by taking the best parts out of divers faces to make one excellent.

Bacon.

Old Chaucer doth of Topas tell,  
 Mad Rabelais of Pantagruel,  
 A later third of Dowsabell,

With such poor *trifles* playing.

Drayton's *Nymphaid*.

Those who are earned away with the spontaneous current of their own thoughts, must never humour their minds in being thus *triflingly* busy.

Locke.

To a soul supported with an assurance of the divine favor, the honours or afflictions of this life will be equally *trifling* and contemptible.

*Triflers* not ev'n in *trifles* can excel;

Rogers.

'Tis solid bodies only polish well.

Young.

Brunetta's wise in actions great and rare,

But scorns on *trifles* to bestow her care:

Thus ev'ry hour Brunetta is to blame,

Because the occasion is beneath her aim.

Think nought a *trifle*, though it small appear;

Small sands the mountain, moments make the year

And *trifles* life. Your care to *trifles* give,

Or you may die before you truly live.

*Id.*

Whatever raises a levity of mind, a *trifling* spirit, renders the soul incapable of seeing, apprehending, and relishing the doctrines of piety.

Law.

**TRIFOLIATE**, *adj.* Lat. *tres* and *folium*.

Having three leaves.

*Trifoliata* cytissus restrained its boughs

For humble sheep to crop, and goats to brouze.

Harte.

**TRIFOLINUS**, a mountain of Italy in Campania, famous for its vines.—Plin. 14. c. 7.

**TRIFOLIUM**, trefoil, or clover, in botany, a genus of plants belonging to the class of diadelphia, and order of decandria, and in the natural system ranging under the thirty-second order, papilionaceæ. The flowers are generally in round heads; the pod is scarcely longer than the calyx, univalve, not opening, deciduous. The leaves are three together. According to Murray's edition of Linnæus there are forty-six species; of which seventeen are natives of Britain. See Lightfoot's *Flora Scotica*, Berkenhout's *Synopsis*, and Withering's *Botanical Arrangements*. The most remarkable are these:—1. *T. alpestre*, long-leaved purple trefoil, or mountain clover, is thus characterised by Mr. Afzelius. The spikes are dense; the corollas somewhat equal; the stipulas are bristly and divergent; the leaflets lanceolated; the stalks stiff, straight, and very simple. It grows in dry, mountainous, woody places, in Hungary, Austria, and Bohemia, &c., but is not said by Mr. Afzelius to be a native of Britain. 2. *T. medium*, according to Mr. Afzelius, has been confounded with the species pratense and alpestre; but it is to be distinguished from them by having loose spikes, corollas somewhat equal, stipulas subulate and connivent, and stalks flexuous and branched. It is found in dry elevated situations, especially among shrubs, or in woods where the soil is chalky or clay, in England, Scotland, Sweden, Denmark, &c. 3. *T. meliloti officinalis*, the melilot, has naked racemous pods, dispermous, wrinkly, and acute, with an erect stalk. It grows in corn-fields and by the way sides, but not common. The stalk is erect, firm, striated, branched, and two or three feet high; the leaves ternate, smooth, obtusely oval, and serrated; the flowers are small, yellow, pendulous, and grow in long close spikes at the tops of the branches; the pod is very short, turgid, transversely wrinkled, pendulous, and contains either one or two seeds. The plant has a very peculiar strong scent, and disagreeable bitter, acrid, taste, but such, however, as is not disagreeable



to cattle. The flowers are sweet-scented. It has generally been esteemed emollient and digestive, and been used in fomentations and cataplasms, particularly in the plaster employed in dressing blisters; but is now laid aside, as its quality is found to be rather acrid and irritating than emollient or resolvent. It communicates a most loathsome flavor to wheat and other grains, so as to render it unfit for making bread. 4. *T. pratense*, purple or red clover, is distinguished by dense spikes, unequal corollas, by bearded stipulas, ascending stalks, and by the calyx having four equal teeth. This is the botanical description of this species given by Mr. Afzelius, who, in the Linnæan Transactions, vol. I., has been at much pains to remove three species of the trifolium from the confusion in which they have been long involved; namely, the *pratense*, medium, and *alpestre*. The red clover is common in meadows and pastures, and is the species which is generally cultivated as food for cattle. It abounds in every part of Europe, in North America, and even in Siberia. It delights most in rich, moist, and sunny places; yet flourishes in dry, barren, and shady places. For an account of the mode of cultivating it, see RURAL ECONOMY. 5. *T. repens*, white creeping trefoil, or Dutch clover, has a creeping stalk, its flower gathered into an umbellar head, and its pods tetraspermous. It is very common in fields and pastures. It is well known to be excellent fodder for cattle; and the leaves are a good rustic hygrometer, as they are always relaxed and flaccid in dry weather, but erect in moist or rainy.

**TRIFORM**, *adj.* Lat. *triformis*. Having a triple shape.

The moon her monthly round  
Still ending, still renewing through mid heaven,  
With borrowed light her countenance *triform*  
Hence fills, and empties, to enlighten the earth.

Milton.

**TRIFURCATED** (from *tres* and *furca*, a fork), having three prongs.

**TRIGA**, in antiquity, a kind of car or chariot drawn by three horses; whence the name.

**TRIGGER**, *n. s.* Derived by Junius from Fr. *trigue*, and Lat. *intricare*. See TRICKER. A catch to hold the wheel on steep ground. The catch of a gun-lock.

The pulling the *trigger* of the gun with which the murder is committed, has no natural connection with those ideas that make up the complex one, murder.

Locke.

**TRIGINTALS**, *n. s.* Lat. *triginta*. Thirty.

Trentals or *trigintals* were a number of masses to the tale of thirty, instituted by Saint Gregory.

Ayliffe.

**TRIGLA**, in ichthyology, a genus of fishes belonging to the order of thoracici. The head is loricated with rough lines, and there are seven rays in the membranes of the gills. There are eleven species, of which the principal are these: 1. *T. cuculus*, the red gurnard. 2. *T. gurnar*

*dus*, or gray gurnard. 3. *T. hirundo*, the sapharine gurnard. 4. *T. lyra*, or the piper.

**TRIGLOCHIN**, in botany, a genus of plants belonging to the class of hexandria, and order of trigynia; and in the natural system ranging under the fifth order, tripelatoideæ. The calyx is triphyllous; the petals are three; there is no style; the capsule opens at the base. There are three species; of which two are British, viz. :— 1. *T. maritimum*, or sea spiked grass, has ovate sexlocular capsules; the stalk is short; the spike long, and flowers purplish. It is frequent on the sea coasts. 2. *T. palustre*, arrow-headed grass, has an oblong trilocular capsule. The stalk is simple, eight or ten inches high; the leaves long and narrow; the flowers are greenish, and grow at the end of a long spike. It is frequent in moist ground. Linnæus says that cattle eat these two species with avidity.

**TRIGLYPH**, *n. s.* In architecture. A member of the frieze of the Dorick order set directly over every pillar, and in certain spaces in the intercolumniations.

The Dorick order has now and then a sober garnishments of lions' heads in the cornice, and of *triglyphs* and metopes always in the frieze. Wotton.

**TRIGON**, *n. s.* Gr. *τριγωνον*. A triangle. A term in astrology.

The ordinary height of a man ninety-six digits, the ancient Egyptians estimated to be equal to that mystical cubit among them stiled *passus Ibis*, or the *trigon* that the Ibis makes at every step, consisting of three latera, each thirty-two digits.

Hale's Origin of Mankind.

A spar of a yellow hue shot into numerous *trigonal* pointed shoots of various sizes, found growing to one side of a perpendicular fissure of a stratum of freestone.

Woodward.

**TRIGONELLA**, fenugreek, in botany, a genus of plants belonging to the class of diadelphia, and order of decandria; and in the natural system arranged under the thirty-second order, papilionacæ. The vexillum and alææ are nearly equal and patent, resembling a tripetalous corolla. There are twelve species; of which the most remarkable is, *T. fenum græcum*, or fenugreek, a native of Montpellier in France. Fenugreek is an annual plant, which rises with a hollow, branching, herbaceous stalk, a foot and a half long, garnished with trifoliate leaves, placed alternately, whose lobes are oblong, oval, indented on their edges, and have broad furrowed foot-stalks. Fenugreek seeds have a strong disagreeable smell, and an unctuous farinaceous taste, accompanied with a slight bitterness. The principal use of these seeds is in cataplasms and fomentations, for softening, maturing, and discussing tumors; and in emollient and carminative gylsters.

**TRIGONOM'ETRY**, *n. s.* Gr. *τριγωνος* and *μετρο*. See next page.

*Trigonometry* is the art of measuring triangles, or of calculating the sides of a triangle sought, and this is plain or spherical. Harris.

# TRIGONOMETRY.

TRIGONOMETRY is that branch of mathematical science by which, if certain parts of triangles are given, the others may be computed.

Every triangle has six parts, three sides and three angles; and it is requisite that three of these be given, to find the other three. In spherical trigonometry, the given parts may be of any kind, either all sides or all angles, or part the one, and part the other. But in plane trigonometry, at least one of the given parts must be a side; as from the angles alone only the proportions of the sides, not their actual lengths, can be determined.

The sides and angles of triangles being quantities of different kinds, they cannot be directly compared with each other; but the relation between the sides and the magnitudes of the angles may be found by comparing the sides with certain lines drawn in and about a circle, on which lines the arcs of the circle which measure the angles of the triangles depend. These lines are called chords, sines, tangents, and secants. The ancients, Menelaus, Hipparchus, &c., performed their trigonometrical computations by means of the chords; and the sines, as well as the common theorems relating to them, were introduced into trigonometry by the Moors and Arabians, from whom this art, with several other branches of science, passed into Europe. Since the fifteenth century, the Europeans have introduced the use of tangents, secants, &c., with the theorems relating to them.

Few circumstances have contributed more to the improvement of this science than a simple suggestion respecting the notation, first made and adopted in practice by Euler. It is nothing more than denoting the angles of a triangle by the first three capital letters of the alphabet, A, B, and C, and the sides opposite those angles by the corresponding small letters *a*, *b*, and *c*; for in any theorem for the resolution of a problem in trigonometry, the relation between the parts is at once perceived.

Thus, in the common formulæ,  $\cos. A = \frac{\cos. a - \cos. b \cdot \cos. c}{\sin. b \cdot \sin. c}$ , it is seen at once that *a* is the side opposite the angle A, and that *b* and *c* are the sides containing that angle.

We have above given the original signification of the term trigonometry; but, in the modern acceptance of the term, it may be considered as the science by which we may determine the positions and dimensions of different parts of space, by means of the previous knowledge of some of those parts. The formulæ of trigonometry have also been applied to the solution of problems in which quantity, not magnitude, is the only consideration; as in the solution of the irreducible case of cubic equations; and of physical astronomy, trigonometrical formulæ may be said to form the language.

**Definitions.**—1. If two lines meet in the centre of a circle, the arc of the circumference intercepted between them is called the measure of

the angle, which they contain; by which is meant merely that the intercepted arc is the same part of the circumference of the circle that the angle is of four right angles. Thus, in fig. 1, TRIGONOMETRY, A B is the same part of the circumference A B D F E A that the angle A C B is of four right angles.

2. If the circumference of a circle be divided into 360 equal parts, each of these parts is called a degree of the circle; if a degree be divided into sixty equal parts, each of these parts is called a minute; and, if a minute be divided into sixty equal parts, each of these parts is called a second, &c.; and whatever number of degrees, minutes, seconds, &c., are contained in any arc of a circle, the angle at the centre measured by that arc is said to contain the same number of degrees, minutes, seconds, &c.

3. Degrees, minutes, seconds, &c., are usually denoted by the marks  $^{\circ}$ ,  $'$ ,  $''$ , &c.; thus  $18^{\circ} 4' 27''$  signifies eighteen degrees, four minutes, and twenty-seven seconds.

4. Two arcs whose sum is equal to a semicircle, or two angles whose sum is equal to two right angles, are called supplements of each other.

5. The difference between an arc and a quadrant, or between an angle and a right angle, is called the complement of that arc or that angle.

6. A perpendicular let fall from one extremity of an arc upon the diameter which passes through the other extremity, is called the sine of that arc.

7. The versed sine of an arc is that portion of the diameter intercepted between the sine and the circumference.

8. The tangent of an arc is a perpendicular to the diameter at one extremity of an arc, meeting the diameter produced which passes through the other extremity.

9. The secant of an arc is the line drawn from the centre to the termination of the tangent.

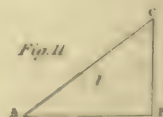
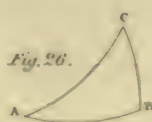
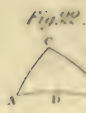
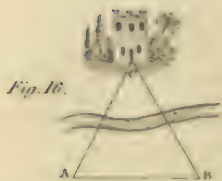
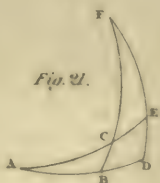
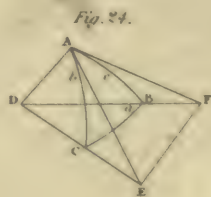
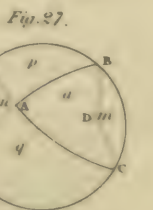
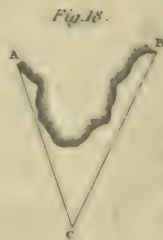
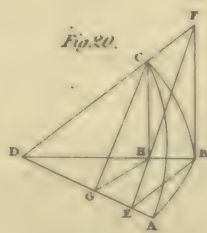
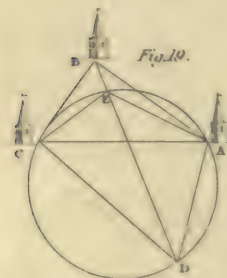
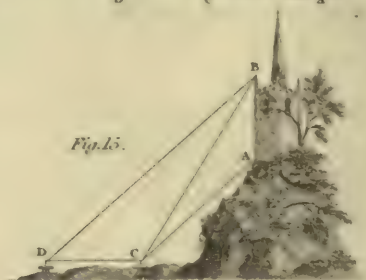
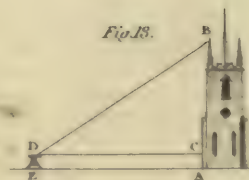
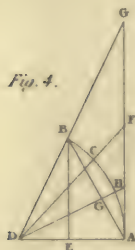
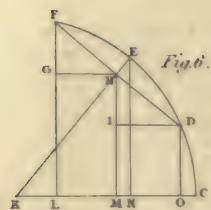
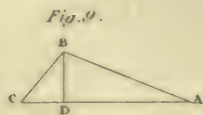
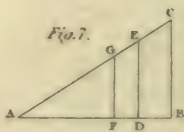
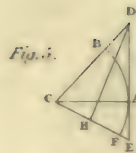
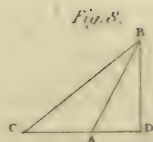
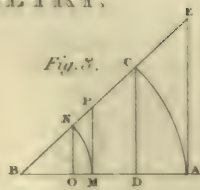
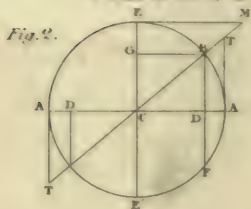
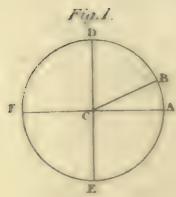
10. The sine, tangent, secant, &c., of the complement of an arc are usually termed the cosine, cotangent, cosecant, &c., of that arc.

To illustrate the above definitions, let A B (fig. 2) be the arc of a circle described with the radius A C, and let A E be a quadrant; from B draw B D perpendicular to the diameter A A'; and parallel to it draw A T, meeting C T in T; let G B and E M be drawn parallel to A A', the latter meeting C T produced in M. Then B A is the supplement of B E A', and B E A' is the supplement of B A; B A is the complement of B E, and B E is the complement of B A or of B E A', the angles B C A and B C A' are supplements of each other; and B C E is the complement of B C A or of B C A'.—B D is the sine, D A the versed sine, A T the tangent, and C T the secant of the arc A B, or of the angle A C B to the radius A C. G B is the sine, E G the versed sine, E M the tangent, and C M the secant of the arc E B; which arc being the complement of A B, G B, or its equal C D, is called





# TRIGONOMETRY.





the cosine,  $EG$  the covered sine,  $EM$  the cotangent, and  $CM$  the cosecant of the arc  $AB$ , or of the angle  $ACB$  to the radius  $AC$ .

These expressions are thus abbreviated:—

For the sine of an arc as  $AB$  is put  $\sin. AB$

|           |      |   |   |                  |
|-----------|------|---|---|------------------|
| cosine    | $AB$ | . | . | $\cos. AB$       |
| tangent   | $AB$ | . | . | $\tan. AB$       |
| cotangent | $AB$ | . | . | $\cot. AB$       |
| secant    | $AB$ | . | . | $\sec. AB$       |
| cosecant  | $AB$ | . | . | $\csc. AB, \&c.$ |

From the preceding definition we may deduce the following obvious consequences:—

1. When an arc vanishes, its sine and tangent vanish also; and its secant and cosine are each equal to the radius.

2. The sine and the versed sine of a quadrant are each equal to the radius, its cosine vanishes, and its secant and tangent are infinite.

3. The versed sine of an arc and its cosine are together equal to the radius.

4. The chord of an arc is twice the sine of half the arc.

5. Of any arc less than a quadrant, the arc is less than its tangent, the chord less than the arc, and the sine less than the chord. For the sector  $CAB$  is less than the triangle  $CAT$ ; and, by mensuration, the sector  $CAB = \frac{CA}{2} \times \text{arc}$

$AB$ , and the triangle  $CAT = \frac{CA}{2} \cdot AT$ ;

whence  $\frac{CA}{2} \times AB$  is less than  $\frac{CA}{2} \cdot AT$ , and

consequently  $AB$  is less than  $AT$ . In a similar way it may be shown that the chord  $AB$  is less than the arc  $AB$ , and the sine  $BD$  less than the chord  $AB$ .

6. An arc and its supplement have the same sine, tangent, and secant.

7. The radius, tangent, and secant, constitute a right angled triangle  $= CAT$  the cosine, radius, and sine, constitute a similar right angled triangle; as do also the cotangent, radius, and cosecant.

Hence  $CD^2 + BD^2 = CB^2$ ; or  $\cos.^2 + \sin.^2 = \text{rad.}^2$ ;  $CA^2 + AT^2 = CT^2$ ; or  $\text{rad.}^2 + \tan.^2 = \sec.^2$ ;  $CE^2 + EM^2 = CM^2$ ; or  $\text{rad.}^2 + \cot.^2 = \csc.^2$ ;  $\cos.^2 = \text{rad.}^2 - \sin.^2 = \frac{\text{rad.}}{\sin.} + \sin.$ ;  $\text{rad.} - \sin.$ ;  $\sin.^2 = \text{rad.}^2 - \cos.^2 = \text{rad.} + \cos.$ ;  $\text{rad.} - \cos.$

And, by similar triangles, we have  $CD : DB :: CA : AT$ , or  $\cos. : \sin. :: \text{rad.} : \tan.$ , or  $\tan. = \frac{\text{rad.} \cdot \sin.}{\cos.}$ , when radius is unity. Similarly we have  $\cot. = \frac{\text{rad.} \cdot \cos.}{\sin.} = \frac{\cos.}{\sin.}$ , when radius is unity.

Again,  $CD : CB :: CA : CT$ , or  $\cos. : \text{rad.} :: \text{rad.} : \sec.$ ; whence  $\cos. \sec. = \text{rad.}^2$ , or  $\cos. = \frac{\text{rad.}^2}{\sec.} = \frac{1}{\sec.}$ , when radius is unity; and  $\sec. = \frac{\text{rad.}^2}{\cos.} = \frac{1}{\cos.}$ , when radius is unity. Similarly we have  $\sin. \csc. = \text{rad.}^2$ ;  $\sin. = \frac{\text{rad.}^2}{\csc.} = \frac{1}{\csc.}$ , when radius is unity.

Again,  $AT : AC :: CE : EM$ ; or  $\tan. : \text{rad.} :: \text{rad.} : \cot.$ ; whence  $\tan. \cdot \cot. = \text{rad.}^2$ ;  $\tan. = \frac{\text{rad.}^2}{\cot.}$ , when radius is unity;  $\cot. = \frac{\text{rad.}^2}{\tan.}$ , when radius is unity;  $\tan. = \frac{1}{\cot.}$ , when radius is unity;  $\cot. = \frac{1}{\tan.}$ , when radius is unity. Again,  $AT : AC :: CE : EM$ ; or  $\tan. : \text{rad.} :: \text{rad.} : \cot.$ ; whence  $\tan. \cdot \cot. = \text{rad.}^2$ ;  $\tan. = \frac{\text{rad.}^2}{\cot.}$ , when radius is unity;  $\cot. = \frac{\text{rad.}^2}{\tan.}$ , when radius is unity;  $\tan. = \frac{1}{\cot.}$ , when radius is unity;  $\cot. = \frac{1}{\tan.}$ , when radius is unity.

$\frac{1}{\csc.}$ , when radius is unity;  $\csc. = \frac{\text{rad.}^2}{\sin.}$ .

$\frac{1}{\sin.}$ , when radius is unity.

Again,  $AT : AC :: CE : EM$ ; or  $\tan. : \text{rad.} :: \text{rad.} : \cot.$ ; whence  $\tan. \cdot \cot. = \text{rad.}^2$ ;  $\tan. = \frac{\text{rad.}^2}{\cot.}$ , when radius is unity;  $\cot. = \frac{\text{rad.}^2}{\tan.}$ , when radius is unity.

$\frac{1}{\cot.}$ , when radius is unity;  $\cot. = \frac{\text{rad.}^2}{\tan.}$ .

$\frac{1}{\tan.}$ , when radius is unity.

8. If  $M$  and  $N$  represent any two arcs, we have, from what has just been shown,  $\cos. M \cdot \sec. N = \cos. N \cdot \sec. M$ ;  $\sin. M \cdot \csc. N = \sin. N \cdot \csc. M$ ; and  $\tan. M \cdot \cot. N = \tan. N \cdot \cot. M$ . Whence  $\cos. M : \cos. N :: \sec. N : \sec. M$ ;  $\sin. M : \sin. N :: \csc. N : \csc. M$ ; and  $\tan. M : \tan. N :: \cot. N : \cot. M$ .

9. The sine, tangent, &c., of an arc which is the measure of any given angle as  $ABC$ , fig. 3, &c. is to the sine of any other arc by which the same angle  $ABC$  may be measured, as the radius of the first arc to the radius of the second. For let  $AC$  and  $MN$  each measure the angle  $B$ ;  $CD$  being the sine,  $DA$  the versed sine,  $AE$  the tangent, and  $BE$  the secant of the arc  $AC$ ;  $NO$  the sine,  $OM$  the versed sine,  $MP$  the tangent, and  $BP$  the secant of the arc  $MN$ . Then by similar triangles we have  $CD : NO :: \text{rad.} BC : \text{rad.} BN$ ;  $AE : MP$  or  $BE : BP :: \text{rad.} BA : \text{rad.} BM$ ; and  $BC : BD :: BN : BO$ ; or  $BA : BD :: BM : BO$ ; hence  $BA : BA - BD :: BM : BM - BO$ ; or  $BA : AD :: B M : MO$ ; or  $BA : BM :: AD : MO$ .

10. In trigonometrical investigations it is often convenient to consider the radius as unity, for the sake of simplifying the expressions. But such expressions may easily be adapted to any other radius. For if  $BC$  in the figure under consideration be represented by  $R$ ,  $BN$  by unity, and  $DC = \sin.$  to radius  $R$ , we have  $BC (R) : CD (\sin.) :: BN (1) : NO = \frac{\sin.}{R}$ . Hence,

any formula which has been investigated on the supposition that radius is unity, may be adapted to another radius  $R$  by substituting for  $\sin.$ ,  $\tan.$ , &c., in the given expression,  $\frac{\sin.}{R}$ ,  $\frac{\tan.}{R}$ , &c., and

then reducing the expression to its most simple form.

The numerical values of the sines, tangents, &c., of every arc computed to any radius will exhibit the ratio of the sines, tangents, &c., corresponding to any other radius. A table containing such numbers is called a table of natural sines, tangents, &c.; and a table exhibiting the logarithms of those numbers is called a table of logarithmic sines, tangents, &c. Tables of natural sines, &c., are generally computed to radius unity; and tables of logarithmic sines, &c., are generally computed to the radius whose logarithm is 10, that the logarithm of the smallest sine likely to be required in computation, may have a positive, not a negative index; or that the corresponding natural sine may not be fractional.

The logarithm of radius in such tables being 10, the logarithm of  $\text{rad.}^2$  is 20, of  $\text{rad.}^3$  30, &c. the logarithmic sine and cosine of any arc is less

than 10, but the logarithmic tangents, secants, cotangents, and cosecants admit of all possible values.

#### ON THE SIGNS OF TRIGONOMETRICAL QUANTITIES.

When geometrical quantities that are measured from a given point or line are considered analytically, they are considered as positive or negative, and are accordingly designated as + or —, according as they lie on the same side or on opposite sides of the same point or line. Thus in fig 2, the sines are estimated from the diameter AA', and in the semicircle AEA' they are considered as +; but, as in the other semicircle AEA' they fall on the other side of the diameter AA', they are then considered as —. The cosines, being estimated from the centre C, are considered as + in the first quadrant AE; but as in the second quadrant EA, and the third AE', they fall on the other side of the centre C they are then considered as —; and again in the fourth quadrant EA they become +, as in the first quadrant. As  $\tan. = \frac{\sin.}{\cos.}$ ,  $\tan.$  is + in the

first and third, and — in the second and fourth quadrants; and, as  $\cot. = \frac{1}{\tan.}$  the  $\tan.$  and  $\cot.$

have the same sine; and as  $\sec. = \frac{1}{\cos.}$ , and  $\csc. = \frac{1}{\sin.}$ , the  $\sec.$  and  $\cos.$  have the same sine, and the cosecant and sine have the same sign.

PROP. I.—The chord of 60° and the tangent of 45° are each equal to the radius; the sine of 30°, the versed sine of 60°, and the cosine of 60°; are each equal to half the radius; and the secant of 60° is double the radius.

Let D, fig. 4, be the centre of a circle, AB an arc of 60°, and AC an arc of 45°; join AB, BD, and from B draw BE perpendicular to AD, and from D draw DGH perpendicular to AB, and it will bisect both the chord AB and the arc ACB. Draw the tangent AG meeting the secants DBG and DCF in G and F. Now, as the angle BDA is 60°, the sum of the two equal angles DAB and DBA is 120°; therefore each of these angles is 60°, and consequently the triangle ABD is equilateral: whence AB, the chord of 60° is equal to the radius. And as, in the equilateral triangle ABD, the perpendicular BE bisects AD, and the perpendicular DGH bisects both the chord AB and the arc ACB, DE the cosine of 60°, EA the versed sine of 60°, and BC the sine of 30°, are each equal to half the radius. And by similar triangles DE : DB :: DA : DG; whence, as DB = 2 DE, DG = 2 DA, or the secant of 60° is double the radius.

Again as the angle DAF is a right angle, and the angle ADF is half a right angle, the

(I.) Hence  $FL, \sin. \overline{A+B} = \sin. A \cdot \cos. B + \cos. A \cdot \sin. B.$

DO,  $\sin. \overline{A-B} = \sin. A \cdot \cos. B - \cos. A \cdot \sin. B.$

KL,  $\cos. \overline{A+B} = \cos. A \cdot \cos. B - \sin. A \cdot \sin. B.$

KO,  $\cos. \overline{A-B} = \cos. A \cdot \cos. B + \sin. A \cdot \sin. B.$

By taking the sum and the difference of the first two of these four equations, and also of the last two, we have—

angle AFD must also be half a right angle; and therefore AD and AF are equal, or the tangent of 45° is equal to the radius.

PROP. II.—The secant of an arc is equal to the sum of its tangent and the tangent of half its complement.

Let AB, fig. 5, be any arc, AD its tangent, and CD its secant; produce AD till DE is equal to DC; join CE, and draw DH a perpendicular on CE. Then as the right angled triangles CAE and DHE have the common angle E and the right angles CAE and DHE equal; the remaining angle ACE in the one is equal to the remaining angle EDH in the other. But the triangle EDC being isosceles, the angle D is bisected by the perpendicular DH; therefore the angle ACE is equal to half ADC, or to half the complement, of ACD. Hence AD the tangent of ACD, and AE the tangent of half its complement, are equal to CD its secant.

PROP. III.—If A represent the greater and B the less of two arcs, it is proposed to investigate the relations between the sines and cosines of those arcs and the sines and cosines of their sums.

Let K, fig. 6, be the centre of the circle, CE the greater arc A, and EF or ED the less arc B; join F, D, and K, E, which will bisect FD in H and cut it at right angles. Draw FL, HM, EN, and DO perpendicular to KC and GH, ID parallel to KC. Then the triangles FGH and HID are obviously identical, GF and HI being equal; and GH, ID, LM, and MO are also equal. If from the right angles FHK and GHM the common part GHK be taken, the angles FHG and KHM will remain equal; and as the angles at G and M are also equal, being right angles, the angles HKM and HFG are equal, and consequently the triangle FGH, which is identical with the triangle HID, is similar to KHM, which again is evidently similar to KEN.

Now EN is the sine, and KN the cosine of the greater arc A, FH the sine and KH the cosine of the less arc B; FL the sine and KL the cosine of the sum of the arcs  $\overline{A+B}$ ; DO the sine and KO the cosine of the difference of the arcs  $\overline{A-B}$ . And  $LF = HM + CF$ ;  $DO = HM - HI = HM - GF$ ;  $KL = KM - GH$ , and  $KO = KM + ID = KM + GH$ .

From the properties of similar triangles we have  $KE : EN :: KH : HM$ ; or  $\text{rad.} : \sin. A :: \cos. B : HM$ ; whence if radius be unity  $HM = \sin. A \cdot \cos. B$ . And  $KE : KN :: FH : FG$ ; or  $\text{rad.} : \cos. A :: \sin. B : FG$ ; whence  $FG = \cos. A \cdot \sin. B$ . And  $KE : KN :: KH : KM$ ; or  $\text{rad.} : \cos. A :: \cos. B : KM$ ; whence  $KM = \cos. A \cdot \cos. B$ . Lastly,  $KE : EN :: FH : HG$ ; or  $\text{rad.} : \sin. A :: \sin. B : HG$ , whence  $HG = \sin. A \cdot \sin. B$ .



$$\begin{aligned}
 \text{(II.) } \sin. \frac{A+B}{2} + \sin. \frac{A-B}{2} &= 2 \sin. A \cdot \cos. B. \\
 \sin. \frac{A+B}{2} - \sin. \frac{A-B}{2} &= 2 \cos. A \cdot \sin. B. \\
 \cos. \frac{A+B}{2} + \cos. \frac{A-B}{2} &= 2 \cos. A \cdot \cos. B. \\
 \cos. \frac{A+B}{2} - \cos. \frac{A-B}{2} &= 2 \sin. A \cdot \sin. B.
 \end{aligned}$$

On the four equations which we have now obtained it may be remarked that  $A$  is half the sum of  $\frac{A+B}{2}$  and  $\frac{A-B}{2}$ , and that  $B$  is half the difference of  $\frac{A+B}{2}$  and  $\frac{A-B}{2}$ ; if therefore instead of  $\frac{A+B}{2}$  we were to put  $A'$ , and instead of  $\frac{A-B}{2}$  we were to put  $B'$ , we must put for  $A$  in the same equations  $\frac{A'+B'}{2}$ , and for  $B$   $\frac{A'-B'}{2}$ , and the equations would then stand in this form:

$$\begin{aligned}
 \text{(III.) } \sin. A' + \sin. B' &= 2 \sin. \frac{A'+B'}{2} \cdot \cos. \frac{A'-B'}{2} \\
 \sin. A' - \sin. B' &= 2 \cos. \frac{A'+B'}{2} \cdot \sin. \frac{A'-B'}{2} \\
 \cos. A' + \cos. B' &= 2 \cos. \frac{A'+B'}{2} \cdot \cos. \frac{A'-B'}{2} \\
 \cos. B' - \cos. A' &= 2 \sin. \frac{A'+B'}{2} \cdot \sin. \frac{A'-B'}{2}.
 \end{aligned}$$

If in these last expressions the arc  $B'$  were to be considered as evanescent, we should have

$$\begin{aligned}
 \text{(IV.) } \sin. A' &= 2 \sin. \frac{A'}{2} \cdot \cos. \frac{A'}{2} \\
 \sin. A' &= 2 \cos. \frac{A'}{2} \cdot \sin. \frac{A'}{2}
 \end{aligned}
 \left. \vphantom{\begin{aligned} \sin. A' &= 2 \sin. \frac{A'}{2} \cdot \cos. \frac{A'}{2} \\ \sin. A' &= 2 \cos. \frac{A'}{2} \cdot \sin. \frac{A'}{2} \end{aligned}} \right\} \text{whence } \sin. \frac{A \pm B}{2} = 2 \sin. \frac{A \pm B}{2} \cdot \cos. \frac{A \pm B}{2}$$

$$1 + \cos. A' = 2 \cos.^2 \frac{A'}{2}; \text{ whence } \cos. \frac{A'}{2} = \sqrt{\frac{1 + \cos. A}{2}}$$

$$1 - \cos. A' = 2 \sin.^2 \frac{A'}{2}; \text{ whence } \sin. \frac{A'}{2} = \sqrt{\frac{1 - \cos. A}{2}}$$

$$\begin{aligned}
 \text{(V.) Again, } \sin. A + \sin. B \cdot \sin. A - \sin. B &= 2 \sin. \frac{A+B}{2} \cdot \cos. \frac{A+B}{2} \cdot 2 \sin. \frac{A-B}{2} \\
 \cos. \frac{A-B}{2} &= \sin. \frac{A+B}{2} \cdot \sin. \frac{A-B}{2}. \text{ Whence } \sin. \frac{A-B}{2} : \sin. A - \sin. B :: \sin. A + \sin. B : \sin. \frac{A+B}{2}.
 \end{aligned}$$

$B : \sin. \frac{A+B}{2}.$

(VI.) By dividing the first equation (III.) by the third we have

$$\frac{\sin. A + \sin. B}{\sin. A - \sin. B} = \frac{2 \sin. \frac{A+B}{2} \cdot \cos. \frac{A-B}{2}}{2 \cos. \frac{A+B}{2} \cdot \sin. \frac{A-B}{2}} = \frac{\tan. \frac{A+B}{2}}{\tan. \frac{A-B}{2}}.$$

Proceeding in the same way we have

$$\frac{\sin. A + \sin. B}{\cos. A + \cos. B} = \frac{2 \sin. \frac{A+B}{2} \cdot \cos. \frac{A-B}{2}}{2 \cdot \cos. \frac{A+B}{2} \cdot \cos. \frac{A-B}{2}} = \frac{\tan. \frac{A+B}{2}}{\text{rad.}}$$

$$\frac{\sin. A + \sin. B}{\cos. B - \cos. A} = \frac{2 \sin. \frac{A+B}{2} \cdot \cos. \frac{A-B}{2}}{2 \sin. \frac{A+B}{2} \cdot \sin. \frac{A-B}{2}} = \frac{\cot. \frac{A-B}{2}}{\text{rad.}}$$

$$\frac{\sin. A - \sin. B}{\cos. B + \cos. A} = \frac{2 \cos. \frac{A+B}{2} \cdot \sin. \frac{A-B}{2}}{2 \cos. \frac{A+B}{2} \cdot \cos. \frac{A-B}{2}} = \frac{\tan. \frac{A-B}{2}}{\text{rad.}}$$

$$\frac{\sin. A - \sin. B}{\cos. B - \cos. B} = \frac{2 \cos. \frac{A+B}{2} \cdot \sin. \frac{A-B}{2}}{2 \sin. \frac{A+B}{2} \cdot \sin. \frac{A-B}{2}} = \frac{\tan. \frac{A+B}{2}}{\text{rad.}}$$

$$\frac{\cos. A + \cos. B}{\cos. B - \cos. A} = \frac{2 \cos. \frac{A+B}{2} \cdot \cos. \frac{A-B}{2}}{2 \sin. \frac{A+B}{2} \cdot \sin. \frac{A-B}{2}} = \frac{\cot. \frac{A+B}{2}}{\tan. \frac{A-B}{2}}.$$

(VII.) If B, in each of these expressions, vanish, we have

From the first equation the identical expression  $\frac{\sin. A}{\sin. A} = \frac{\tan. \frac{1}{2} A}{\tan. \frac{1}{2} A}$

From the second  $\frac{\sin. A}{1 + \cos. A} = \frac{\tan. \frac{A}{2}}{\text{rad.}} = \frac{\text{rad.}}{\tan. \frac{A}{2}}$

From the third  $\frac{\sin. A}{1 - \cos. A} = \frac{\cot. \frac{A}{2}}{\text{rad.}} = \frac{\text{rad.}}{\tan. \frac{A}{2}}$

From the fourth the same expression as from the second  $\frac{\sin. A}{1 + \cos. A} = \frac{\tan. \frac{A}{2}}{\text{rad.}}$

From the fifth the same expression as from the third  $\frac{\sin. A}{1 - \cos. A} = \frac{\cot. \frac{A}{2}}{\text{rad.}}$

From the sixth  $\frac{1 + \cos. A}{1 - \cos. A} = \frac{\cot. \frac{A}{2}}{\tan. \frac{A}{2}} = \frac{\cot.^2 \frac{A}{2}}{\text{rad.}^2} = \frac{\text{rad.}^2}{\tan.^2 \frac{A}{2}}$

(VIII.) Transposing the first and second equations (II.) we have

$$\sin. A + B = 2 \sin. A \cdot \cos. B - \sin. A - B$$

$$\sin. A + B = 2 \cos. A \cdot \sin. B + \sin. A - B$$

and recollecting that it has been shown in proposition I. that  $\sin. 30^\circ$  and  $\cos. 60^\circ$  are each half radius; if we consider A in the first of these equations as  $30^\circ$ , and in the second as  $60^\circ$ , the formulæ will become

$$\text{IX. } \sin. 30^\circ + B = \cos. B - \sin. 30^\circ - B$$

$$\sin. 60^\circ + B = \sin. B + \sin. 60^\circ - B$$

(X.) If in the first two equations (III.) A be considered  $= 90^\circ$ , they will become

$$1 + \sin. B = 2 \sin. 45^\circ + \frac{B}{2} \cdot \cos. 45^\circ - \frac{B}{2} = 2 \sin.^2 45^\circ + \frac{B}{2} = 2 \cos.^2 45^\circ - \frac{B}{2}$$

$$1 - \sin. B = 2 \cos. 45^\circ + \frac{B}{2} \cdot \sin. 45^\circ - \frac{B}{2} = 2 \cos.^2 45^\circ + \frac{B}{2} = 2 \sin.^2 45^\circ - \frac{B}{2}$$

$$\text{XI. Hence } \frac{1 + \sin. B}{1 - \sin. B} = \frac{\tan.^2 45^\circ + \frac{B}{2}}{\tan.^2 45^\circ - \frac{B}{2}} = \frac{\cot.^2 45^\circ - \frac{B}{2}}{\cot.^2 45^\circ + \frac{B}{2}}$$

$$\frac{1 + \sin. B}{1 + \cos. A} = \frac{2 \sin.^2 45^\circ + \frac{B}{2}}{2 \cos.^2 \frac{A}{2}} = \frac{\sin.^2 45^\circ + \frac{B}{2}}{\cos.^2 \frac{A}{2}}$$

$$\frac{1 - \sin. B}{1 - \cos. A} = \frac{2 \sin.^2 45^\circ - \frac{B}{2}}{2 \sin.^2 \frac{A}{2}} = \frac{\sin.^2 45^\circ - \frac{B}{2}}{\sin.^2 \frac{A}{2}}$$

PROP. IV.—A representing the greater, and B the less of two arcs, it is proposed to investigate the relation between the tangents of those arcs and the tangents of their sum and their difference.

(I.) By formula 1, proposition III., we have  $\frac{\sin. A + B}{\cos. A + B} = \frac{\tan. A + B}{\text{rad.}} =$

$$\frac{\sin. A \cdot \cos. B + \cos. A \cdot \sin. B}{\cos. A \cdot \cos. B - \sin. A \cdot \sin. B} = \frac{\frac{\sin. A \cdot \cos. B}{\cos. A \cdot \cos. B} + \frac{\cos. A \cdot \sin. B}{\cos. A \cdot \cos. B}}{\frac{\cos. A \cdot \cos. B}{\cos. A \cdot \cos. B} - \frac{\sin. A \cdot \sin. B}{\cos. A \cdot \cos. B}} = \frac{\tan. A + \tan. B}{1 - \tan. A \cdot \tan. B}$$

and similarly we have  $\frac{\sin. A - B}{\cos. A - B} = \frac{\tan. A - B}{\text{rad.}} = \frac{\tan. A - \tan. B}{1 + \tan. A \cdot \tan. B}$  Hence, radius being unity, we have  $\tan. A \pm B = \frac{\tan. A \pm \tan. B}{1 \mp \tan. A \cdot \tan. B}$

(II.) If in this expression  $A = 45^\circ$ , then  $\tan. A = \text{rad.}$  (proposition I.), and we have  $\tan. 45^\circ \pm B = \frac{1 \pm \tan. B}{1 \mp \tan. B}$



If  $t, t', \&c.$ , be the tangents of the arcs  $A, B, C, \&c.$ , then, considering  $\overline{A+B}$  as one arc, we have  $\tan. \overline{A+B+C} = \frac{\tan. \overline{A+B} + \tan. C}{1 - \tan. \overline{A+B} \cdot \tan. C}$ . But  $\tan. A+B = \frac{t+t'}{1-t \cdot t'}$

$$(III.) \text{ Hence } \tan. \overline{A+B+C} = \frac{\frac{t+t'}{1-t \cdot t'} + t''}{1 - \frac{t+t'}{1-t \cdot t'} \cdot t''} = \frac{t+t'+t''-t \cdot t' \cdot t''}{1 - (t \cdot t' + t \cdot t'' + t' \cdot t'')}. \text{ And if } A+B$$

+  $C = 180^\circ$ , which is the case when  $A, B$ , and  $C$  are the angles of a plane triangle; then, since  $\tan. 180^\circ = 0$ , the theorem gives  $t+t'+t'' = t \cdot t' \cdot t''$ ; (IV) or when radius is unity, the sum of the tangents of three arcs, which together make  $180^\circ$ , is equal to the continued product of those tangents.

PROP. V.—From the sine and cosine of any given arc  $A$ , it is proposed to investigate expressions for the sines and cosines of its multiples.

In formula 1, proposition III., we have  $\sin. \overline{A+B} = \sin. A \cdot \cos. B + \cos. A \cdot \sin. B$ .

If in this expression  $B$  be taken successively  $= A, 2A, 3A, \&c.$ , we shall find

$$(I.) \sin. 2A = 2 \sin. A \cdot \cos. A.$$

$$\sin. 3A = \sin. A \cdot \cos. 2A + \cos. A \cdot \sin. 2A.$$

$$\sin. 4A = \sin. A \cdot \cos. 3A + \cos. A \cdot \sin. 3A, \&c.$$

Again, in the same proposition, we have  $\cos. \overline{A+B} = \cos. A \cdot \cos. B - \sin. A \cdot \sin. B$ , and substituting for  $B, A, 2A, 3A, \&c.$ , in succession, we have

$$(II.) \cos. 2A = \cos. A \cdot \cos. A - \sin. A \cdot \sin. A = 2 \cos.^2 A - 1 = 1 - 2 \sin.^2 A.$$

$$\cos. 3A = \cos. A \cdot \cos. 2A - \sin. A \cdot \sin. 2A.$$

$$\cos. 4A = \cos. A \cdot \cos. 3A - \sin. A \cdot \sin. 3A, \&c.$$

Again, by formula 8, proposition III.,

$$\sin. A+B = 2 \sin. A \cdot \cos. B - \sin. \overline{A-B}.$$

If in this formula  $B = n-1 \cdot A$ , it becomes

$$(III.) \sin. nA = 2 \cos. A \cdot \sin. (n-1) \cdot A - \sin. (n-2) \cdot A.$$

By adding together the third and fourth expressions, formula 2, proposition III., and transposing we have  $\cos. \overline{A+B} = 2 \cos. A \cdot \cos. B - \cos. \overline{A-B}$ .

Here let  $B = n-1 \cdot A$ , and the formula becomes

$$(IV.) \cos. nA = 2 \cos. A \cdot \cos. (n-1)A - \cos. (n-2) \cdot A.$$

If in formula 1 and 2 of this proposition we substitute  $\sqrt{1-\cos.^2}$  for  $\sin.$ , and  $\sqrt{1-\sin.^2}$  for  $\cos.$ , the expressions will stand thus:

$$(V.) \sin. A = s.$$

$$\sin. 2A = 2s \sqrt{1-s^2}.$$

$$\sin. 3A = 3s - 4s^3.$$

$$\sin. 4A = 4s - 8s^3 \cdot \sqrt{1-s^2}, \&c.$$

And

$$(VI.) \cos. A = c.$$

$$\cos. 2A = 2c^2 - 1.$$

$$\cos. 3A = 4c^3 - 3c.$$

$$\cos. 4A = 8c^4 - 8c^2 + 1, \&c.$$

A class of very elegant and curious formulæ may be deduced from the last class by means of a particular substitution.

$$(VII.) \text{ Make } 2 \cos. A = x + \frac{1}{x}; \text{ then } 2 \cos. 2A = 2 \cdot (2 \cos.^2 A - 1) = 2 \left( \frac{1}{x} \cdot x + \frac{1}{x} - 1 \right) \\ = x^2 + \frac{1}{x^2}, \text{ and a like substitution for } 2 \cos. 3A, 2 \cos. 4A, \&c., \text{ will give } 2 \cos. 3A = x^3 + \frac{1}{x^3}, \\ 2 \cos. 4A = x^4 + \frac{1}{x^4}, \&c.$$

From the application of imaginary quantities, some trigonometrical formulæ may be deduced, which are of great importance as instruments of investigation.

Adopting the above substitution, we have  $\cos.$

$$A = \frac{1}{2} \cdot x + \frac{1}{x}, \text{ whence } \sin. A = \sqrt{1-\cos.^2 A} \\ = \frac{\sqrt{-1}}{2} \cdot x - \frac{1}{x}; \text{ or } 2 \sqrt{-1} \cdot \sin. A = x - \frac{1}{x}.$$

By a similar deduction we find  $2 \sqrt{-1} \cdot \sin. mA = x^m - \frac{1}{x^m}$ . Hence  $\cos. A + \sqrt{-1} \cdot$

$$\sin. A = x, \cos. A - \sqrt{-1} \sin. A = \frac{1}{x}, \text{ and} \\ \cos. mA + \sqrt{-1} \sin. mA = x^m, \cos. mA - \sqrt{-1} \sin. mA = \frac{1}{x^m}; \text{ therefore, } (\cos. A \\ + \sqrt{-1} \sin. A)^m = \cos. mA + \sqrt{-1} \sin. mA$$

$\sin. m A$ , and  $(\cos. A - \sqrt{-1} \cdot \sin. A)^m =$   
 $\cos. m A - \sqrt{-1} \cdot \sin. m A$ .

Expanding these expressions, and adding them,  
 we have  $\cos. m A = \cos. A - \frac{m \cdot m - 1}{2}$

$\cos. m A \cdot \sin. A + \frac{m \cdot m - 1 \cdot m - 2 \cdot m - 3}{2 \cdot 3 \cdot 4}$   
 $\cdot \cos. A \cdot \sin. A - \&c.$

If we subtract them, we have  $\sin. m A = m \cdot$   
 $\cos. m A \cdot \sin. A - \frac{m \cdot m - 1 \cdot m - 2}{2 \cdot 3} \cdot \cos.$   
 $m A \cdot \sin. A + \&c.$

PROP. VI.—It is proposed to express the  
 powers of the sine and cosine of an arc in terms  
 of the cosines and sines of the multiple arc.

Expressions of the kind which we have here  
 proposed to investigate are of the greatest im-  
 portance in all mathematical investigations con-  
 nected with physical astronomy.

As  $2 \cos. A = x + \frac{1}{x}$ ,  $2^n \cdot \cos. n A =$

$(x + \frac{1}{x})^n =$  (by expanding the binomial)  $x^n$   
 $+ n x^{n-1} + n \frac{n-1}{2} x^{n-2} + \&c. \quad \frac{n}{x^{n-1}} + \frac{1}{x^n} =$

$x^n + \frac{1}{x^n} + n(x^{n-1} + \frac{1}{x^{n-1}}) + n \cdot \frac{n-1}{2}$

$(x^{n-2} + \frac{1}{x^{n-2}}) + \&c.$ , by collecting into pairs  
 the terms equally distant from the middle term  
 of the series. But  $2 \cos. n A = x^n + \frac{1}{x^n}$ .

Hence  $2^n \cdot \cos. n A = 2 \cdot \{ \cos. n A + n \cdot \cos.$

$n-2 \cdot A + n \cdot \frac{n-1}{2} \cdot \cos. n-4 A + \&c.$

Or  $2^{n-1} \cos. n A = \cos. n A + n \cdot \cos. n-2$   
 $A + n \cdot \frac{n-1}{2} \cdot \cos. n-4 A - \&c.$

As examples of the formula  
 If  $n=2$ ,  $2 \cos. 2 A = \cos. 2 A + 1$   
 $n=3$ ,  $2^2 \cos. 3 A = \cos. 3 A + 3 \cos. A$   
 $n=4$ ,  $2^3 \cos. 4 A = \cos. 4 A + 4 \cos. 2 A + 3$   
 $n=5$ ,  $2^4 \cos. 5 A = \cos. 5 A + 5 \cos. 3 A + 10$   
 $\cos. A$ , &c.

To obtain a general form for  $\sin. n A$ ; in  
 the expression for  $\cos. n A$ , substitute  $q - \frac{A}{q}$  ( $q$   
 signifying a right angle); then  $2^{n-1} \cos. n A -$   
 $\cos. n q - n A + n \cdot \cos. n-2 (q - \frac{A}{q}) + n$   
 $\frac{n-1}{2} \cos. n-4 \cdot q - \frac{A}{q}$ , and by reduction we

have  $\pm 2^{n-1} \sin. n A = \sin. n A - n \cdot \sin. n-2$   
 $A + n \cdot \frac{n-1}{2} \sin. n-4 \cdot A - \&c.$

As examples of this form—  
 If  $n=2$ ;  $2 \sin. 2 A = -\cos. 2 A + 1$   
 $n=3$ ;  $2^2 \sin. 3 A = -\sin. 3 A + 3 \sin. A$   
 $n=4$ ;  $2^3 \sin. 4 A = \cos. 4 A - 4 \cos. 2 A + 3$   
 $n=5$ ;  $2^4 \sin. 5 A = \sin. 5 A - 5 \sin. 3 A + 10$   
 $\sin. A$ , &c.

The three preceding propositions contain a  
 condensed view of what, in modern mathematics,  
 has been termed the arithmetic of sines.

PROP. VII.—It is proposed to investigate the

formula required for the solution of the different  
 cases of right angled plane triangles:—Let  
 ABC (fig. 7,) be a plane triangle, right-angled  
 at B; round A as a centre with any radius,  
 AD, describe the arc DG; and from G and D  
 draw GF and DE perpendicular to AB.  
 Then GF will be the sine of the angle A,  
 AF its cosine, DE its tangent, and AE its se-  
 cant; and, as the angle C is the complement of  
 A, the sine, tangent, and secant, of one of these  
 angles will be the cosine, coangent, and cosecant  
 respectively, of the other. Now, by the properties  
 of right angled triangles  $AC = \sqrt{A B^2 + B C^2}$ ,  
 $AB = \sqrt{(AC + BC) \cdot (AC - BC)}$ , and  $BC$   
 $= \sqrt{(AC + AB) \cdot (AC - AB)}$ .

Again, by similar triangles  $AC : CB :: AG :$   
 $GF$ , that is  $:: \text{rad.} : \sin. A$ ; hence  $AC \cdot \sin. A$   
 $= BC \text{ rad.}$ ; therefore  $BC = \frac{AC \cdot \sin. A}{\text{rad.}}$   
 $\frac{AC \cos. C}{\text{rad.}}$ , and  $AC = \frac{BC \text{ rad.}}{\sin. A} = \frac{BC \text{ cosec. A}}{\text{rad.}}$   
 $= \frac{BC \cdot \sec. C}{\text{rad.}}$ . And similarly  $AB = \frac{AC \cos. A}{\text{rad.}}$   
 $\frac{AC \cdot \sin. C}{\text{rad.}}$ , and  $AC = \frac{AB \cdot \text{rad.}}{\cos. A} = \frac{AB \cdot \sec. A}{\text{rad.}}$   
 $\frac{AB \cdot \text{cosec. C}}{\text{rad.}}$ .

Again,  $AB : BC :: AD : DE$ , that is  $:: \text{rad.} :$   
 $\tan. A$ ; therefore  $AB \cdot \tan. A = BC \text{ rad.}$ ; hence  
 $AB = \frac{BC \text{ rad.}}{\tan. A} = \frac{BC \cdot \cot. A}{\text{rad.}} = \frac{BC \cdot \tan. C}{\text{rad.}}$ ; and  
 $BC = \frac{AB \tan. A}{\text{rad.}} = \frac{AB \cot. C}{\text{rad.}}$ .

PROP. VIII.—It is proposed to investigate the  
 formulae required in the solution of the different  
 cases of oblique-angled plane triangles.

Formula 1.— $AB \cdot \sin. A = CB \cdot \sin. C$  (figs.  
 8 and 9). For let BD, in each figure, be a  
 perpendicular from B on the base AC, or  
 AC produced. Then, by the last proposition,  
 in the right-angled triangle CBD  $CB \cdot \sin. C$   
 $= BD \text{ rad.}$ , and  $AB \cdot \sin. BAD = BD \cdot \text{rad.}$ ; and,  
 therefore  $AB \cdot \sin. BAD = CB \cdot \sin. C$ ; and,  
 $\sin. BAD$  (fig. 8)  $= \sin. BAC$ ; whence gen-  
 erally  $AB \cdot \sin. A = BC \sin. C$ . Hence  $CB :$   
 $BA :: \sin. A : \sin. C$ .

Formula 2.—In the same figures  $AD : DC ::$   
 $\tan. ABD : \tan. DBC$ , or  $:: \cot. A : \cot. C$ . For  
 (prop. VII.)  $BD \cdot \tan. ABD = AD \text{ rad.}$ , and  
 $BD \cdot \tan. DBC = CD \text{ rad.}$ , and therefore  $AD :$   
 $\text{rad.} : CD \text{ rad.} :: BD : \tan. ABD : BD \cdot \tan.$   
 $DBC$ ; hence  $AD : CD :: \tan. ABD : \tan.$   
 $DBC$ ; or  $:: \cot. A : \cot. C$ .

Formula 3.—In any triangle a  $ABC$  (fig.  
 10), in which  $AB$  and  $C$  represent the  
 angles, and  $a, b$ , and  $c$ , the sides opposite those  
 angles,  $a + b : a - b :: \tan. \frac{A+B}{2} : \tan. \frac{A-B}{2}$   
 For formula 1 of this proposition  $a : b :: \sin. A :$   
 $\sin. B$ ; therefore  $a + b : a - b :: \sin. A + \sin.$   
 $B : \sin. A - \sin. B ::$  (formula 1, prop. III.)  $\tan.$   
 $\frac{A+B}{2} : \tan. \frac{A-B}{2}$ .

Formula 4.—In any triangle, as  $ABC$  (fig.  
 9), if  $BD$  be a perpendicular, let fall from  
 the vertex upon the longest side, then  $AC :$   
 $AB + BC :: AB - BC : AD - DC$ . For



by geometry  $\overline{AD+DC} \cdot \overline{AD-DC} = \overline{AB+BC} \cdot \overline{AB-BC}$ ; and, as  $\overline{AD+DC} = \overline{AC}$ , we have  $\overline{AC} : \overline{AB+BC} :: \overline{AB-BC} : \overline{AD-DC}$ .

**Formula 5.**—In any triangle, as  $\triangle ABC$  (fig. 10),  $c : a + b :: \sin. \frac{C}{2} : \cos. \frac{A-B}{2}$ .

For  $c : a + b :: \sin. C : \sin. A + \sin. B$ . But  $\sin. C = \sin. \overline{A+B} = 2 \sin. \frac{A+B}{2} \cdot \cos. \frac{A+B}{2}$

(formula 4, prop. III.), and  $\sin. A + \sin. B = 2 \sin. \frac{A+B}{2} \cdot \cos. \frac{A-B}{2}$  (formula 3, prop. III.);

therefore  $c : a + b :: 2 \sin. \frac{A+B}{2} \cdot \cos. \frac{A+B}{2} : 2 \sin. \frac{A+B}{2} \cdot \cos. \frac{A-B}{2}$ ;

$2 \sin. \frac{A+B}{2} \cdot \cos. \frac{A-B}{2} :: \cos. \frac{A+B}{2} : \cos. \frac{A-B}{2}$ ;

and, as  $\cos. \frac{A+B}{2} : \sin. \frac{C}{2} :: \frac{C}{2}$ , the

proportion becomes  $c : a + b :: \sin. \frac{C}{2} : \cos. \frac{A-B}{2}$ .

**Formula 6.**—In any triangle, as  $\triangle ABC$  (fig. 10),  $c : a - b :: \cos. \frac{C}{2} : \sin. \frac{A+B}{2}$ .

For  $c : a - b :: \sin. C : \sin. A - \sin. B$ . But  $\sin. C = 2 \sin. \frac{C}{2} \cdot \cos. \frac{C}{2}$

(formula 4, prop. III.), and  $\sin. A - \sin. B = 2 \cos. \frac{A+B}{2} \cdot \sin. \frac{A-B}{2}$

(formula 3, prop. III.); therefore  $c : a - b :: 2 \sin. \frac{C}{2} \cdot \cos. \frac{C}{2} : 2 \cos. \frac{A+B}{2} \cdot \sin. \frac{A-B}{2}$ ;

$2 \sin. \frac{C}{2} \cdot \cos. \frac{C}{2} :: \cos. \frac{A+B}{2} : \sin. \frac{A-B}{2}$ ;

and, as  $\cos. \frac{A+B}{2} : \sin. \frac{C}{2} :: \frac{C}{2}$ , the

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**Formula 7.**—In any plane triangle, as  $\triangle ABC$  (figs. 8 and 9),  $\cos. C \cdot AB = \frac{CA^2 + AB^2 - CB^2}{2 \cdot CA \cdot AB}$ , radius being unity. For

in fig. 8,  $CB^2 = CA^2 + AB^2 - 2 \cdot CA \cdot AB \cdot \cos. C$ ; and  $AD = AB \cdot \cos. B$ .  $AD^2 = AB^2 \cdot \cos^2. B$

whence  $CB^2 = CA^2 + AB^2 - 2 \cdot CA \cdot AB \cdot \cos. C$ ; and consequently  $\cos. C = \frac{CA^2 + AB^2 - CB^2}{2 \cdot CA \cdot AB}$ . Again, in fig. 9,  $CA^2 +$

$AB^2 = CB^2 + 2 \cdot CA \cdot AB \cdot \cos. C$ ; and  $AD = AB \cdot \cos. A$ ; therefore  $CA^2 + AB^2 = CB^2 + 2 \cdot CA \cdot AB \cdot \cos. C$ ; and therefore  $\cos. C = \frac{CA^2 + AB^2 - CB^2}{2 \cdot CA \cdot AB}$ , or, calling the sides oppo-

site the angles  $A, B$ , and  $C$ , respectively  $a, b$ , and  $c$ , and observing that the cosine of an obtuse angle is negative, we have universally  $\cos. A = \frac{b^2 + c^2 - a^2}{2bc}$ , radius being unity.

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For  $1 - \cos. A = 2 \sin. \frac{A}{2} \cdot \sin. \frac{A}{2} = \frac{2bc}{2bc} - \frac{b^2 + c^2 - a^2}{2bc} = \frac{a^2 - (b^2 + c^2 - 2bc)}{2bc} = \frac{a^2 - b^2 - c^2 + 2bc}{2bc}$

whence  $\sin. \frac{A}{2} = \frac{a^2 - b^2 - c^2 + 2bc}{4bc} = \frac{(a+b-c)(a-b+c)}{4bc} = \frac{S-b \cdot S-c}{bc}$ , to radius unity  $= \frac{R^2 S - b \cdot S - c}{bc}$  to radius  $R$ , whence  $\sin. \frac{A}{2} = \sqrt{\frac{\text{rad.}^2 \cdot S - b \cdot S - c}{bc}}$ .

Examples of the application of the formulæ for the solution of right angled plane triangles.

1. In a plane right angled triangle, as  $\triangle ABC$ , fig. 11, given  $AC$  480, and  $\angle A$   $53^\circ 8'$ , required  $AB$  and  $BC$ .

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Log.  $AC$ , 480, 2.681241  
Log.  $\cos. A$   $53^\circ 8'$  9.778119

For  $c : a - b :: \sin. C : \sin. A - \sin. B :: \sin. \frac{A+B}{2} : \sin. \frac{A-B}{2} :: 2 \sin. \frac{A+B}{2} \cdot \cos. \frac{A+B}{2} : 2 \sin. \frac{A+B}{2} \cdot \sin. \frac{A-B}{2} :: \cos. \frac{A+B}{2} : \sin. \frac{A-B}{2} :: \cos. \frac{C}{2} : \sin. \frac{A-B}{2}$ .

$2 \cos. \frac{A+B}{2} \cdot \sin. \frac{A-B}{2} :: \sin. \frac{A+B}{2} : \sin. \frac{A-B}{2} :: \cos. \frac{C}{2} : \sin. \frac{A-B}{2}$ .

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Log.  $\cos. A$   $53^\circ 8'$  9.778119

Log.  $AC$ , 488, 2.681241  
Log.  $\sin. A$ ,  $53^\circ 8'$ , 9.903108

Rad. 10 12.459360  
Rad. 10 12.584349

$AB$  287.98 log. 2.459360  
 $BC$  384.01 log. 2.584349

2. Given AB, 1214, and  $\angle A$ ,  $51^\circ 40' 30''$ , to find AC and BC.

By Prop. VII. we have  $BC = \frac{AB \cdot \tan. A}{R}$ , and  $AC = \frac{AB \cdot \sec. A}{R}$ , whence

|                               |           |                               |           |
|-------------------------------|-----------|-------------------------------|-----------|
| Log. AB, 1214,                | 3.084219  | Log. AB, 1214,                | 3.084219  |
| $\tan. A \ 51^\circ 40' 30''$ | 10.102119 | $\sec. A \ 51^\circ 40' 30''$ | 10.207523 |
|                               | <hr/>     |                               | <hr/>     |
|                               | 13.186338 |                               | 13.291748 |
| Rad.                          | 10        | Rad.                          | 10        |
|                               | <hr/>     |                               | <hr/>     |

BC 1535.8 log. 3.186338 AC 1957.7 log. 3.291742

3. Given AB 63.4, and AC 85.72, to find the other parts.

By Prop. VII.  $AC \cdot \cos. A = AB \cdot R$ , whence  $\cos. A = \frac{AB \cdot R}{AC}$ , and  $BC = \frac{AB \cdot \tan. A}{R}$

or  $BC = \sqrt{(AC + AB) \cdot (AC - AB)}$  —

|               |           |                             |           |
|---------------|-----------|-----------------------------|-----------|
| Log. AB 63.4, | 1.802089  | AB 63.4                     | 1.802089  |
| Rad.          | 10        | $\tan. A, 42^\circ 18' 4''$ | 9.959025  |
|               | <hr/>     |                             | <hr/>     |
|               | 11.802089 |                             | 11.761104 |
| Log. AC 85.72 | 1.933082  | Rad.                        | 10        |
|               | <hr/>     |                             | <hr/>     |

A,  $42^\circ 18' 4''$  log. cos. 9.869007  
whence  $C = 47^\circ 41' 56''$ .

BC 57.69 log. 1.761104

Or

AC 85.72

BC 63.4

And  $\angle C = \text{compt. } \angle A = 47^\circ 41' 56''$

169.12 log. 2.173536

22.32 log. 1.348694

2)3.522230

BC 57.69 log. 1.761115

4. Given AB 8372.1, and BC 694.73, to find the other parts.

By Proposition VII.  $AB \cdot \tan. A = BC \cdot R$ , whence  $\tan A = \frac{BC \cdot R}{AB}$ ; and by the same propo-

sition  $AC = \frac{AB \cdot \sec. A}{R}$ . Hence

BC 694.73 log. 2.841816  
Rad. 10

AB 8372.1 log. 3.922834  
sect. A  $4^\circ 44' 37''$  10.001490

12.841816  
AB 8372.1 log. 3.922834

Rad. 10

A  $4^\circ 44' 37''$  log. tan. 8.918978

AC 8400.9 log. 3.924324

whence  $\angle C \ 85^\circ 15' 23''$ .

Examples of the application of the formulæ for the solution of oblique angled plane triangles.

1. In a triangle, as ABC, fig. 10, given AB, 376,  $\angle A \ 48^\circ 3'$ , and  $\angle B \ 40^\circ 14'$ , to find the other parts.

The angle C, being the supplement of the sum of A and B, is  $91^\circ 43'$ .

And by Formula 1, Prop. VIII.,  $AB \cdot \sin. B = AC \cdot \sin. C$  and  $AB \cdot \sin. A = BC \cdot \sin. C$ ,

whence  $AC = \frac{AB \cdot \sin. B}{\sin. C} = \frac{AB \cdot \sin. B \cdot \text{cosec. } C'}{R^2}$ ; and  $BC = \frac{AB \cdot \sin. A}{\sin. C} =$

$\frac{AB \cdot \sin. A \cdot \text{cosec. } C'}{R^2}$ .

Log. AB, 376, 2.575188  
sin. B  $40^\circ 14'$  9.810167  
cosec. C  $91^\circ 43'$  10.000195

Log. AB, 376, 2.575188  
sin. A  $48^\circ 3'$  9.871414  
cosec. C  $91^\circ 43'$  10.000195

22.385550

22.446797

$R^2$  20

$R^2$  20

AC 242.97 log. 2.385550

BC 279.77 log. 2.446797

2. In a triangle ABC, fig. 12, are given BC 2943, AC 2314, and  $\angle B$  opposite the less of the given sides, =  $139^\circ 024'$ , to find the other parts.

This example belongs to what has been denominated the ambiguous case in oblique angled triangles. For a circle described from C, with the radius CA, will cut the base again in A', and both the triangles BCA and BCA' answer to the given data; and this conclusion agrees also with



that obtained from the formula for finding A, which is  $\sin. A = \frac{BC \cdot \sin. B}{AC}$ ; whence the result may be the angle A or its supplement; or, in the figure, the result may be the angle A, or its supplement BA'C.

Log. BC, 2943    3.468790    The supplement of the sum of B and A is  $BCA = 86^\circ 46' 14''$ ; and the supplement of the sum of B and BA'C is  $BCA' = 14^\circ 25' 46''$  and  $BA = \frac{BC \cdot \sin. BCA \cdot \csc. A}{R^2}$ ,  
 sin. B  $39^\circ 24'$     9.802589    46' 14";  
 Log. AC, 2314    3.364363    and  $BA' = \frac{BC \cdot \sin. BCA' \cdot \csc. BA'C}{R^2}$ .

$\angle A 53^\circ 49' 46'' \sin.$     9.907016  
 $\angle BA'C 126^\circ 10' 14''$

Log. BC, 2943,    3.468790  
 sin. BCA  $86^\circ 46' 14''$     9.999310  
 cosec. A  $53^\circ 49' 46''$     10.092984

Log. BC, 2943,    3.468790  
 sin. BCA'  $14^\circ 25' 46''$     9.396526  
 cosec. BA'C  $126^\circ 10' 14''$     10.092984

23.561084  
 R<sup>2</sup> . . . . . 20

22.958300  
 R<sup>2</sup> . . . . . 20

BA 3639.8 log.    3.561084    BA' 908.45 log.    2.958300

3. In a triangle, as ABC, fig. 9, given AC 2847, BC 979.3, and the angle C included by those sides =  $57^\circ 21' 10''$ , to find the other parts.

From B demit BD a perp. on AC; then  $CD = \frac{CB \cdot \cos. C}{\text{rad.}}$ , prop. VII; and  $AD = CA - CD$ .

Then, Formula 2, proposition VIII.,  $CD : DA :: \cot. C : \cot. A$ , or  $\cot. A = \frac{DA \cdot \cot. C}{CD}$ ;  
 the angle ABC is the supplement of the sum of A and C; and  $AB = \frac{BC \cdot \sin. C \cdot \csc. A}{R^2}$

Log. BC 979.3    2.990916  
 cos. C  $57^\circ 21' 10''$     9.731963

Log. AD 2318.708    3.365245  
 cot. C  $57^\circ 21' 10''$     9.806647

12.722879  
 Rad.    10

13.171892  
 Log. CD 528.298    2.722879

Log.    2.722879

cot. A  $19^\circ 34' 35''$     10.449013  
 C  $57^\circ 21' 10''$

CD 528.298  
 AC 2847

76 55 45  
 180

AD 2318.702

103 4 15  $\angle ABC$

Log. BC 979.3    2.990916  
 sin. C  $57^\circ 21' 10''$     9.925316  
 cosec A  $19^\circ 34' 35''$     9.525127

22.441359  
 Rad.<sup>3</sup>    20

AB 276.286 Log.    2.441359

The angles may be found more elegantly and conveniently by means of formula 3, Prop. VIII. For as the angle C is given, its supplement or the sum of the angles A and B is given; consequently

$\frac{A+B}{2}$  is given, and by the formula referred to  $AC + CB : AC - CB :: \tan. \frac{A+B}{2} ; \tan. \frac{B-A}{2} = (AC - CB) \tan. \frac{A+B}{2}$ , and  $A = \frac{A+B}{2} - \frac{B-A}{2}$ , and  $B = \frac{A+B}{2} + \frac{B-A}{2}$ .

Now  $\frac{180^\circ - 57^\circ 21' 10''}{2} = 61^\circ 19' 25'' = \frac{A+B}{2}$ ,  $AC + BC = 3826.3$  and  $AC - BC = 1867.7$ . Hence.

Log. 1867.7    3.271307

$\tan. \frac{A+B}{2} 61^\circ 19' 25''$     10.262053. Hence  $A = 19^\circ 24' 35''$ , and  $B 103^\circ 4' 15''$ , as before.

13.533360

Log. 3826.3    3.582779

$A - B$   
 $\frac{2}{2} 41^\circ 44' 50'' \tan.$     9.950581

4. Given AC (fig. 9), = 4287, AB, 3758, and BC 2819, to find the angles.

We shall, for the sake of exemplifying the use of different formulæ, find each angle by a different process.

By Formula 4, Prop. VIII, we have  $AC : AB + BC : AB - BC : AD - DC$ , whence

$$\frac{AD - DC}{2} = \frac{AB + BC \cdot AB - BC}{2AC}, \text{ and } CD = \frac{AC}{2} - \frac{AD - DC}{2}, \text{ and } \cos. C =$$

$$\frac{CD \cdot \text{rad.}}{CB}. \text{ Now } AB + BC = 6577, AB - BC = 939, \text{ and } 2AC = 8574, \text{ whence}$$

$$\begin{array}{rcl} \text{Log. } 6577 & 3.818028 & \text{Log. } CD \ 1423.24 \ 3.153278 \\ \text{Log. } 939 & 2.972666 & \text{Rad. } . . . . \ 10 \end{array}$$

$$\begin{array}{rcl} & 6.790694 & 13.153278 \\ \text{Log. } 8574 & 3.933183 & \text{Log. } CB \ 2819 \ 3.450095 \end{array}$$

$$\frac{AD - DC}{2} \ 720.26 \ \text{Log. } 2.857511 \quad C \ 59^\circ 40' 37'' \cos. \ 9.703183$$

$$\text{whence } CD = 1423.24$$

Putting S for half the sum of the three sides, and denoting the sides opposite the angles A, B, and C, by a, b, and c respectively, we have by Form. 8, Prop. VIII.,  $\cos. \frac{A}{2} = \sqrt{\frac{\text{rad.}^2 \cdot S \cdot S - a}{b \cdot c}}$

$$\text{and by Form. 9, Prop. VIII., } \sin. \frac{B}{2} = \sqrt{\frac{\text{rad.}^2 \cdot S - a \cdot S - c}{ac}}$$

Now  $S = 5432$ ,  $S - a = 2613$ ,  $S - b = 1145$ , and  $S - c = 1674$ .

$$\begin{array}{rcl} \text{Log. } b \ 4287 & 3.632153 & \text{Log. } a \ 2819 \ 3.450095 \\ \text{Log. } c \ 3758 & 3.574957 & \text{Log. } c \ 3758 \ 3.574957 \end{array}$$

$$\begin{array}{rcl} & 7.207110 & 7.025052 \end{array}$$

$$\begin{array}{rcl} \text{Rad. } 2 & 20. & \text{Rad. } 2. \ 20. \\ \text{Log. } S \ 5432 & 3.734960 & \text{Log. } S - a \ 2613 \ 3.417139 \\ \text{Log. } S - a \ 2613 & 3.417139 & \text{Log. } S - c \ 1674 \ 3.223755 \end{array}$$

$$\begin{array}{rcl} & 27.152099 & 26.640894 \\ & 7.207111 & 7.025052 \end{array}$$

$$\begin{array}{rcl} & 2)19.944988 & 2)19.615842 \end{array}$$

$$\frac{A}{2} \ 20^\circ 10' 39'' \cos. \ 9.972494 \quad \frac{B}{2} \ 39^\circ 52' 2'' \sin. \ 9.807921$$

2

2

$$A \ 40 \ 21 \ 18$$

$$B \ 79 \ 58 \ 4$$

Promiscuous examples of the application of trigonometrical formulæ to the determination of heights and distances.

1. Wanting to determine the height AB of a tower (fig. 13), I measured from its base AE a distance of 230 yards, and then found its angle of elevation BDC =  $28^\circ 47'$ , required its height, allowing five feet for the height of the instrument?

Here  $BC = \frac{DC \cdot \tan. BDC}{\text{rad.}} = 126.36$  yards; whence  $BA = BC + 5 \text{ feet} = 128.08$  yards.

2. Being desirous of ascertaining the height of a steeple BA (fig. 14), at D, I took its angle of elevation  $16^\circ 4'$ , and measuring directly towards it, 263 feet to C, I found its angle of elevation  $BCA = 30^\circ 29'$ , required its height and its distance from C?

Here the angle  $DBC = BCA - BDC = 14^\circ 25'$ ; and  $BC = \frac{DC \cdot \sin. D \cdot \text{cosect } DBC}{\text{rad.}^2}$ ,

$$BA = \frac{BC \cdot \sin. BCA}{\text{rad.}} =$$

$$\frac{DC \cdot \sin. D \cdot \text{cosect } DBC \sin. BCA}{\text{rad.}^3} =$$

$$148.305, \text{ and } AC = \frac{BC \cdot \cos. BCA}{\text{rad.}} =$$

$$\frac{DC \cdot \sin. D \cdot \text{cosect } DBC \cdot \cos. BCA}{\text{rad.}^3} =$$

$$251.94.$$

3. At D (fig. 15), I took BDC the angle of elevation of a light-house on the top of a hill =  $43^\circ 24'$ , and measuring directly towards it 180 yards, to C, I took again the angle of elevation BCE of its top,  $63^\circ 12'$ , and ACE the elevation of its bottom  $49^\circ 14'$ , required the height of the tower, and also the height of the hill on which it stood?

Here, as in the last example, we have  $DBC = BCE - BDC = 19^\circ 48'$ , and  $BE$   
 $DC \cdot \sin. D \cdot \cos. DBC \cdot \sin. DCE =$   
 $\text{rad.}^3$



326.03, and by Form. 2, Prop. VIII.,  $EB : EA :: \tan. BCE : \tan. ACE$ , whence  $EA = \frac{EB \cdot \tan. ACE}{\tan. BCE} = \frac{EB \cdot \tan. ACE \cdot \cot. BCE}{\text{rad.}^2} = 191.41$ , and  $AB = BE - AE = 134.62$ .

4. To determine the distance of a tower on the opposite side of a river, (see fig. 16) an officer measured a base AB of 346 yards, and at A found the angle CAB  $67^\circ 14'$ , and at B the angle CBA  $= 48^\circ 28'$ , what are the distances of C, the tower, from A and B, the extremities of the measured base?

The angle ACB being the supplement of the sum of A and B is  $64^\circ 18'$ . Hence  $AC = \frac{AB \cdot \sin. B \cdot \text{cosect } C}{\text{rad.}^2} = 287.4$ , and  $BC = \frac{AB \cdot \sin. A \cdot \text{cosect } C}{\text{rad.}^2} = 334.0$ .

5. To find the distance between a house and a mill, neither of which I could get near, I measured a base AB (fig. 17),  $= 820$  yards; at A I observed the angle DAB  $= 80^\circ 28'$ , and CAB  $= 40^\circ 43'$ ; and at B I observed the angle CBA  $= 100^\circ 12'$ , and DBA  $= 52^\circ 46'$ , required the distance CD?

The angle ADB being the supplement of the sum of DAB and ABD is  $46^\circ 46'$ ; and the angle ACB being the supplement of the sum of CAB and CBA is  $39^\circ 5'$ ; also the angle DAC, which is the difference of DAB and CAB, or  $39^\circ 5'$ .

Now  $AD = \frac{AB \cdot \sin. ABD \cdot \text{cosect } ADB}{\text{rad.}^2} = \frac{896.093}{\text{rad.}^2}$ ; and  $AC = \frac{AB \cdot \sin. BAC \cdot \text{cosect } ACB}{\text{rad.}^2} = \frac{848.444}{\text{rad.}^2}$ ; and  $\frac{ADC + ACD}{2} = \frac{180^\circ - CAD}{2} = 70^\circ 27' 30''$ ; and by Form. 3, Prop. VIII.,  $\tan. \frac{ADC \propto ACD}{2} = \frac{AD \propto DC \cdot \tan. \frac{ADC + ACD}{2}}{AD + DC} = 4^\circ 24' 1''$ ;

whence  $ADC = 66^\circ 3' 29''$ , and  $ACD = 74^\circ 51' 31''$ ; and  $CD = \frac{AD \cdot \sin. DAC \cdot \text{cosect } ACD}{\text{rad.}^2} = 585.26$ .

6. To determine the distance AB (fig. 18), between the extreme points of the entrance of a harbour, the distance of each from a point C inland, and the angle ACB were measured;  $AC = 896$  yards,  $BC = 1014$ , and the angle C  $28^\circ 44'$ , required the distance AB?

Here  $\frac{A + B}{2} = 75^\circ 38'$ ;  $\tan. \frac{A \propto B}{B} = \frac{AC - BC \cdot \tan. \frac{A + B}{2}}{AC + BC} = \frac{896 - 1014 \cdot \tan. 13^\circ 33' 32''}{896 + 1014}$ , whence  $A = 89^\circ 11' 32''$ , and  $B = 62^\circ 4' 28''$ ; and  $AB = \frac{AC \cdot \sin. C \cdot \text{cosect } B}{\text{rad.}^2} = 488.022$ .

7. In a tower besieged there are three steeples, A, B, and C (fig. 19), with the distances of which from each other, the besiegers are acquainted from a map of the place; AB is 700, BC 560, and AC 1000 yards. Now the besiegers wishing to plant a battery at D are desirous of knowing whether from thence the town can be attacked with effect. The angle CDB was found to be  $12^\circ 15'$ , and the angle BDA  $15^\circ 35'$ ; required the distance of D from each of the objects A, B, and C.

On AC let a segment of a circle be described to contain the sum of the angles CDB and ADB; and on BA imagine the segment of a circle to be described, containing the angle ADB, the intersection of these circles D, as is obvious from the principles of geometry, will be the position of the battery.

Join BD and let it meet the circumference in E, then the angle CEA, which is the supplement of CDA, is  $152^\circ 10'$ , and the angle CAE  $=$  the angle CDE  $= 12^\circ 15'$ , and  $ECA = EDA = 15^\circ 35'$ . Hence  $CE = \frac{CA \cdot \sin. CAE \cdot \text{cosect } CEA}{\text{rad.}^2} = 454.438$ ; and

calling BC, a, AC, b, and AB, c; and putting S for  $\frac{a + b + c}{2}$ , we have, formula 8, proposition

VIII.,  $\cos. \frac{C}{2} = \sqrt{\frac{\text{rad.}^2 \cdot S \cdot S - c}{a \cdot b}}$ , or  $\frac{C}{2} =$

$21^\circ 19' 53''$ ; whence  $ACB = 42^\circ 39' 46''$ , and consequently  $BCE = ACB - ECA = 27^\circ 4' 46''$ . Then in the triangle BCE we have  $BC = 560$ ,  $CE = 454.438$ , and the angle BCE  $= 27^\circ 4' 46''$ , to find the angle CBE, which, by operations already sufficiently exemplified, is found  $= 50^\circ 50' 54''$ . Now in the triangle CBD, we have given the angle CDB  $= 12^\circ 15'$  and the angle CBE  $= 50^\circ 50' 54''$ , and consequently the angle BCD  $= 116^\circ 54' 6''$ ; and the side BC being given, we have  $BD = \frac{BC \cdot \sin. BCD \cdot \text{cosect } CDB}{\text{rad.}^2} = 2353.7$  and

$CD = \frac{CB \cdot \sin. CBD \cdot \cos. CDB}{\text{rad.}^2} = 2046.7$ ; and hence DA is readily found  $= 2061.6$ .

# ON SPHERICAL TRIGONOMETRY.

PROP. I.—In any right angled spherical triangle, the rectangle of radius, and the sine of either of the sides containing the right angle, is equal to the rectangle of the tangent of the other side, and the cotangent of the angle opposite to that side.

Let ABC (fig. 20), be a spherical triangle, right angled at B; and let D be the centre of the sphere. From B, in the plane BAD, draw BE perpendicular to DA, and from E in the plane ACD draw EF also perpendicular to DA, meeting DC produced in F, and join FB. Then as AD is perpendicular to EF and EB at their point of meeting, it is perpendicular to the plane EBF, and therefore the plane BDA, which passes through AD, is also perpendicular to the plane BEF. Now, as the angle ABC is a right angle, the plane BDC is

perpendicular to the plane BAD. See GEOMETRY, SPHERICAL. Therefore as the two planes, EBF and DBF, are perpendicular to the same plane ABD, their line of common section BF is also perpendicular to the plane ABD, and therefore perpendicular to BD and BE, which it meets in that plane. BF is therefore the tangent of the arc BC, BE the sine of BE, and the angle BEF, the angle made by the planes CDA and BDA, is the same as the spherical angle BAC. Now, in the right angled plane triangle EBF,  $BE \text{ rad.} = BF, \cot. BEF;$  or  $\text{rad. sin. } AB = \tan. BC \cdot \cot. BAC.$

PROP. II.—In any right angled spherical triangle, the rectangle of radius and the sine of either of the sides containing the right angle is equal to the rectangle of the sine of the angle opposite that side, and the sine of the side opposite the rectangle.

From C (fig. 20,) in the plane of CDA, draw CG perpendicular to AD, and from G in the plane BDA draw GH perpendicular to DA meeting DB in H, and join CH. Then it may be shown, as in the last proportion, that CHG is a right angled plane triangle, CG the sine of CA, CH the sine of BC, and the angle CGH is equal to the spherical angle BAC. Now in the plane triangle CGH, CH, rad. =

$\text{Rad. sin. CE} = \tan. EF \cdot \cot. ECF;$  or  $\text{rad. cos. AC} = \cot. ACB \cdot \cot. A;$  fifth equation.

$\text{Rad. sin. CE} = \sin. CF \cdot \sin. F;$  or  $\text{rad. cos. AC} = \cos. BC \cdot \cos. AB;$  sixth equation.

$\text{Rad. sin. EF} = \tan. EC \cdot \cot. F;$  or  $\text{rad. cos. A} = \cot. AC \cdot \tan. AB;$  seventh equation.

$\text{Rad. sin. EF} = \sin. FC \cdot \sin. FCE;$  or  $\text{rad. cos. A} = \cos. BC \cdot \sin. C;$  eighth equation.

By taking C as the pole of a great circle, and producing BC and AC and completing the figure as above, the ninth and tenth equations may be deduced in the same manner as the seventh and eighth have been.

Napier, the inventor of logarithms, devised a very simple expedient for recollecting these ten equations. He called AB, BC, the complement of A, the complement of C, and the complement of AC, the five circular parts of a spherical triangle, the right angle not being considered. In every case two of these parts will be given to find a third, and of these three parts that which has either one of the others immediately adjoining to it, on each side, or is separated from both of them, by one of the two remaining parts, is called the middle part; and the other two are called adjoining or opposite extremes, according as they are adjacent to or separated from the middle part. Thus when complement A is the middle part, AB and complement AC are adjoining extremes, and BC and complement C opposite extremes; when BC is the middle part, AB and complement C are adjoining, and complement AC and complement A opposite extremes; when complement AC is the middle part, complement A and complement C are adjoining, and AB and BC opposite extremes.

With these explanations Napier's rules are

1. The rectangle of radius and the sine of the middle part is equal to the rectangle of the tangents of the adjoining extremes.

2. The rectangle of radius and the sine of the middle part is equal to the rectangle of the cosines of the opposite extreme.

$CG \cdot \sin. CGH;$  or  $\text{rad. sin. } BC = \sin. AC \cdot \sin. A.$

PROP. III.—In any right angled spherical triangle, as ABC (fig. 21), the following equations obtain:—

1.  $\text{Rad. sin. } AB = \tan. BC \cdot \cot. A.$

2.  $\text{Rad. sin. } AB = \sin. AC \cdot \sin. C.$

3.  $\text{Rad. sin. } BC = \tan. AB \cdot \cot. C.$

4.  $\text{Rad. sin. } BC = \sin. AC \cdot \sin. A.$

5.  $\text{Rad. cos. } AC = \cot. A \cdot \cot. C.$

6.  $\text{Rad. cos. } AC = \cos. AB \cdot \cos. BC.$

7.  $\text{Rad. cos. } A = \tan. AB \cdot \cot. AC.$

8.  $\text{Rad. cos. } A = \cos. BC \cdot \sin. C.$

9.  $\text{Rad. cos. } C = \tan. BC \cdot \cot. AC.$

10.  $\text{Rad. cos. } C = \cos. AB \cdot \sin. A.$

The first four of these equations have been proved in the two preceding propositions. To show the truth of the others, let DF be the great circle of which A is the pole, and produce BC till it meet DF in F; produce AC and AB also till they meet DF in E. Then, by spherical geometry, F is the pole of A B, BD the complement of A B, in the measure of F, and DE, the complement of EF, is the measure of A, CF is the complement of CB, CE the complement of AC, the angle FCE is equal to the vertical angle ACB, and the angles A E and D are right angles.

Now by propositions I. and II.,

$\text{cos. AC} = \cot. ACB \cdot \cot. A;$  fifth equation.

$\text{cos. AC} = \cos. BC \cdot \cos. AB;$  sixth equation.

$\text{cos. A} = \cot. AC \cdot \tan. AB;$  seventh equation.

$\text{cos. A} = \cos. BC \cdot \sin. C;$  eighth equation.

Suppose, for example, that A B, BC, and  $\angle A$ , were the three parts concerned in the formation of an equation. Here AB is the middle part, and BC and the complement of A are adjoining extremes, and by rule first

$\text{Rad. sin. } AB = \tan. BC \cdot \tan. \text{comp. } A = \tan. BC \cdot \cot. A,$  which agrees with the first equation.

Again, let AC, AB, and BC, be the three parts concerned, two of them given and one required. Here the complement of AC will be the middle part, and AB, and BC, which are separated from it, one by A and the other by C, will be the opposite extremes. And by the second rule  $\text{rad. sin. complement AC} = \cos. AB \cdot \cos. BC;$  or  $\text{rad. cos. AC} = \cos. AB \cdot \cos. BC,$  which agrees with the sixth equation.

PROP. IV.—In any spherical triangle, as ABC, (figs. 22 and 23), the following proportions obtain, AD and DB being the segments of the base made by a perpendicular from the vertical angle.

1.  $\text{Sin. AC} : \text{sin. BC} :: \text{sin. B} : \text{sin. A.}$

2.  $\text{Cos. AD} : \text{cos. DB} :: \text{cos. AC} : \text{cos. BC.}$

3.  $\text{Sin. AD} : \text{sin. DB} :: \cot. A : \cot. B.$

4.  $\text{Tan. AD} : \text{tan. DB} :: \tan. ACD : \tan. DCB.$

5.  $\text{Cos. A} : \text{cos. B} :: \text{sin. ACD} : \text{sin. BCD}$

6.  $\text{Cos. ACD} : \text{cos. BCD} :: \cot. AC : \cot. BC.$

For, by proposition II.,  $\text{rad. sin. CD} = \sin. AC, \sin. A;$  and  $\text{rad. sin. CD} = \sin. BC, \sin. B,$  therefore  $\text{sin. AC, sin. A} = \text{sin. BC, sin. B};$  and consequently  $\text{sin. AC} : \text{sin. B} :: \text{sin. A} : \text{sin. B.}$  And, by equation 6th, proposition III.,  $\text{rad. cos. AC} = \cos. AD, \cos. DC,$  and  $\text{rad. cos. BC} = \cos. DB, \cos. DC,$  therefore  $\text{cos. AC, cos. AD} = \text{cos. BC, cos. DB};$  and consequently  $\text{cos. AC} : \text{cos. AD} :: \text{cos. BC} : \text{cos. DB.}$



$BC = \cos. BD, \cos. DC$ ; whence  $\text{rad. cos. } AC : \text{rad. cos. } BC :: \cos. AD : \cos. DC : \cos. BD : \cos. DC$ , or  $\cos. AC : \cos. BC :: \cos. AD : \cos. BD$ . By proposition I.  $\text{rad. sin. } AD = \tan. DC \cdot \cot. A$ , and  $\text{rad. sin. } BD = \tan. DC \cdot \cot. B$ ; whence  $\text{rad. sin. } AD : \text{rad. sin. } BD :: \tan. DC \cdot \cot. A : \tan. DC \cdot \cot. B$ ; and consequently  $\text{sin. } AD : \text{sin. } BD :: \cot. A : \cot. B$ . By proposition II.  $\text{rad. sin. } DC = \tan. AD \cdot \cot. ACD$ , and  $\text{rad. sin. } DC = \tan. DB \cdot \cot. DCB$ ; therefore  $\tan. AD \cdot \cot. ACD = \tan. DB \cdot \cot. DCB$ ; whence  $\tan. AD : \tan. DB :: \cot. DCB : \cot. ACD :: \tan. ACD : \tan. DCB$ ; see 8th deduction from the definitions in *Plane Trigonometry*.

By equation 8th, proposition III.,  $\text{rad. cos. } A = \cos. DC \cdot \sin. ACD$ , and  $\text{rad. cos. } B = \cos. DC \cdot \sin. BCD$ , whence  $\text{rad. cos. } A : \text{rad. cos. } B :: \cos. DC \cdot \sin. ACD : \cos. DC \cdot \sin. BCD$ , or  $\cos. A : \cos. B :: \sin. ACD : \sin. BCD$ .

By equation 7th, proposition III.,  $\text{rad. cos. } ACD = \tan. DC \cdot \cot. AC$ , and  $\text{rad. cos. } DCB = \tan. DC \cdot \cot. BC$ , whence  $\text{rad. cos. } ACD : \text{rad. cos. } DCB :: \tan. DC \cdot \cot. AC : \tan. DC \cdot \cot. BC$ ; or  $\cos. ACD : \cos. DCB :: \cot. AC : \cot. BC$ .

PROP. V.—In any spherical triangle, as  $ABC$ , figs. 22 and 23, if  $CD$  be a perpendicular from  $C$  upon  $AB$ , or  $AB$  produced,  $\tan. BD + AD \cdot \tan. \frac{BD \oslash AD}{2} = \tan. \frac{BC + AC}{2} \cdot \tan. \frac{BC \oslash AC}{2}$ .

For let  $BC = a$ ,  $AC = b$ ,  $BD = m$ , and  $AD = n$ ; then by proportion 2d, proposition IV.  $\cos. a : \cos. b :: \cos. m : \cos. n$ ; whence  $\cos. a + \cos. b$ ;  $\cos. a \oslash \cos. b :: \cos. m + \cos. n : \cos. m \oslash \cos. n$ ; or formula 6th, proposition III. plane trigonometry,  $\cot. \frac{a+b}{2} : \tan. \frac{a \oslash b}{2} :: \cot. \frac{m+n}{2} : \tan. \frac{m \oslash n}{2}$ ; whence  $\cot. \frac{a+b}{2} : \cot. \frac{m+n}{2} :: \tan. \frac{a \oslash b}{2} : \tan. \frac{m \oslash n}{2}$ , or  $\tan. \frac{m+n}{2} : \tan. \frac{a+b}{2} :: \tan. \frac{a \oslash b}{2} : \tan. \frac{m \oslash n}{2}$ ; and consequently  $\tan. \frac{m+n}{2} \cdot \tan. \frac{m \oslash n}{2} = \tan. \frac{a+b}{2} \cdot \tan. \frac{a \oslash b}{2}$ .

By this proposition any oblique angled spherical triangle, whose sides are given, may be divided into two right-angled triangles, in each of which the hypothenuses and a side are given; for the equation determines  $\frac{m \oslash n}{2}$  half the difference of the segments of the given base, in fig. 22; or  $\frac{m+n}{2}$  half the sum of the segments, the difference of which is the given base in fig. 23.

PROP. VI.—In any spherical triangle, as  $ABC$ , fig. 24, if radius be unity,  $\cos. A = \frac{\cos. a - \cos. b \cdot \cos. c}{\sin. b \cdot \sin. c}$ .

For let  $D$  be the centre of the sphere,  $A E$  the tangent, and  $D E$  the secant of the arc  $b$ ,  $A F$  the tangent, and  $D F$  the secant of the arc  $c$ ; then the plane angle  $E A F$  is the spherical angle  $C A B$ , and the plane angle  $E D F$  is measured by the arc  $a$ . Join  $E F$ ; then, by form. 7th, proposition VIII., plane trigonometry,  $E F^2 = E D^2 + D F^2 - 2 E D \cdot D F \cos. D$ , and  $E F^2 = E A^2 + A F^2 - 2 E A \cdot A F \cos. A$ ; whence  $E D^2 + D F^2 - 2 E D \cdot D F \cos. D = E A^2 + A F^2 - 2 E A \cdot A F \cos. A$ , or  $E D^2 + 2 F^2 - E A^2 + A F^2 = 2 \text{ rad.}^2 = 2 E D \cdot D F \cos. D - 2 E A \cdot A F \cos. A$ ; or  $E A \cdot A F \cos. A = E D \cdot D F \cos. D - \text{rad.}^2$ ;

$$\text{or } \cos. A = \frac{E D \cdot D F \cos. D}{E A \cdot A F} - \frac{\text{rad.}^2}{E A \cdot A F} = \frac{\sec. b \cdot \sec. c \cdot \cos. a}{\tan. b \cdot \tan. c} - \frac{\text{rad.}^2}{\tan. b \cdot \tan. c} = \frac{\text{rad.}^2 \cdot \cos. a}{\sin. b \cdot \sin. c} - \frac{\cos. b \cdot \cos. c}{\sin. b \cdot \sin. c} = \frac{\cos. a - \cos. b \cdot \cos. c}{\sin. b \cdot \sin. c}.$$

PROP. VII.—In a spherical triangle, as  $ABC$ , fig. 25, if it be any of the angles, and  $\frac{a+b+c}{2}$  be put  $= S$ ; then  $\cos. \frac{A}{2} = \frac{\sqrt{\sin. S \cdot \sin. S - b \cdot \cos. b \cdot \cos. c}}{\text{rad.}^2}$ ; and  $\sin. \frac{A}{2} = \frac{\sqrt{\sin. S - b \cdot \sin. S - c \cdot \cos. b \cdot \cos. c}}{\text{rad.}^2}$ .

$$\text{For by prop. V. } \cos. A = \frac{\cos. a - \cos. b \cdot \cos. c}{\sin. b \cdot \sin. c} \text{ and unity} = \frac{\sin. b \cdot \sin. c}{\sin. b \cdot \sin. c}, \text{ whence } 1 + \cos. A = \frac{\sin. b \cdot \sin. c + \cos. a - \cos. b \cdot \cos. c}{\sin. b \cdot \sin. c} = \frac{\cos. a - (\cos. b \cdot \cos. c - \sin. b \cdot \sin. c)}{\sin. b \cdot \sin. c} = \frac{\cos. a - \cos. b + c}{\sin. b \cdot \sin. c}.$$

But form. 4th, proposition III., plane trigonometry,  $1 + \cos. A = 2 \cos. \frac{A}{2}$ , and form. 3d of the same proposition,  $\cos. a - \cos. b + c = 2 \sin. \frac{a+b+c}{2} \cdot \sin. \frac{b+c-a}{2} = 2 \sin. \frac{a+b+c}{2} \cdot \sin. \frac{a+b+c}{2} - a = 2 \sin S \cdot \sin. S - a$ , whence  $\cos. \frac{A}{2} = \frac{\sin. S \cdot \sin. S - a}{\sin. b \cdot \sin. c}$  to radius unity =  $\frac{\sin. S \cdot \sin. S - a \cdot R^2}{\sin. b \cdot \sin. c}$ , to radius  $R$ , =  $\frac{\sin. S \cdot \sin. S - a \cdot \cos. b \cdot \cos. c}{\text{rad.}^2}$ ; whence

$$\cos. \frac{A}{2} = \sqrt{\frac{\sin. S \cdot \sin. S - a \cdot \cos. b \cdot \cos. c}{\text{rad.}^2}}$$

$$\text{For the second expression we have } 1 - \cos. A = 2 \sin. \frac{A}{2} = \frac{\sin. b \cdot \sin. c}{\sin. b \cdot \sin. c} - \frac{\cos. a - \cos. b \cdot \cos. c}{\sin. b \cdot \sin. c} = \frac{\cos. b \cdot \cos. c + \sin. b \cdot \sin. c - \cos. a}{\sin. b \cdot \sin. c} = \frac{\cos. b - c - \cos. a}{\sin. b \cdot \sin. c}$$

$$\sin. \frac{A}{2} = \sqrt{\frac{\cos. b - c - \cos. a}{\sin. b \cdot \sin. c}}$$

$$2 \sin. \frac{a+b-c}{2} \cdot \sin. \frac{a-b+c}{2} \cdot \operatorname{cosect}. b \cdot \operatorname{cosect}. c$$

$$\text{Or } \sin. \frac{A}{2} = \frac{\sin. \frac{a+b+c}{2} \cdot \sin. \frac{a+b+c}{2} - b \cdot \operatorname{cosect}. b \cdot \operatorname{cosect}. c}{\operatorname{rad}.^2} =$$

$$\frac{\sin. \overline{S-b} \cdot \sin. \overline{S-c} \cdot \operatorname{cosect}. b \cdot \operatorname{cosect}. c}{\operatorname{rad}. 2}; \text{ whence } \sin. \frac{A}{2} =$$

$$\sqrt{\frac{\sin. \overline{S-b} \cdot \sin. \overline{S-c} \cdot \operatorname{cosect}. b \cdot \operatorname{cosect}. c}{\operatorname{rad}.^2}}.$$

PROP. VIII.—In any spherical triangle, as ABC, fig. 25, if  $a$  be any of the sides,  $\cos a = \frac{\cos. A + \cos. B \cdot \cos. C}{\sin. B \cdot \sin. C}$ .

For by proposition V.  $\cos. A' = \frac{\cos. a' - \cos. b' \cdot \cos. c'}{\sin. b' \cdot \sin. c'}$ ; and, by spherical geometry, if  $A', B', C'$  be the angles, and  $a', b', c'$ , the sides of the supplemental triangle, then  $\cos. A' = \cos. 180^\circ - A' = -\cos. A$ ,  $\cos. a' = \cos. 180^\circ - a' = -\cos. a$ ,  $\cos. b' = \cos. 180^\circ - B = -\cos. B$ ,  $\cos. c' = \cos. 180^\circ - C = -\cos. C$ ,  $\sin. b' = \sin. 180^\circ - B = \sin. B$ , and  $\sin. c' = \sin. 180^\circ - C = \sin. C$ ; whence  $-\cos. a = \frac{-\cos. A - \cos. B \cdot \cos. C}{\sin. B \cdot \sin. C}$ , or  $\cos. a = \frac{\cos. A + \cos. B \cdot \cos. C}{\sin. B \cdot \sin. C}$ .

PROP. VIII.—In any spherical triangle, as ABC, fig. 25, if  $a$  be any of the sides, and  $S = \frac{A+B+C}{2}$ , then  $\cos. \frac{a}{2} = \sqrt{\frac{\cos. S - B \cdot \cos. S - C \cdot \operatorname{cosect}. B \cdot \operatorname{cosect}. C}{\operatorname{rad}.^2}}$ .

For in the expression for  $\sin. \frac{A}{2}$ , proposition VI., if the supplements of the arcs in the supplemental triangle be substituted, becomes when reduced  $\cos. \frac{a}{2} =$

$$\sqrt{\frac{\cos. S - B \cdot \cos. S - C \cdot \operatorname{cosect}. B \cdot \operatorname{cosect}. C}{\operatorname{rad}.^2}}.$$

PROP. IX.—In any spherical triangle, as ABC, fig. 25,  $\cos. \frac{a+b}{2} \cdot \tan. \frac{A+B}{2} = \cos. \frac{a-b}{2} \cdot \cot. \frac{C}{2}$ , and  $\sin. \frac{a+b}{2} \cdot \tan. \frac{A-B}{2} = \sin. \frac{a-b}{2} \cdot \cot. \frac{C}{2}$ .

For equation 1, proposition IV.,  $\sin. A : \sin. B :: \sin. a : \sin. b$ ; whence  $\sin. A \pm \sin. B : \sin. B :: \sin. A \pm \sin. b : \sin. b$ ; or  $\frac{\sin. A \pm \sin. B}{\sin. B} = \frac{\sin. A \pm \sin. b}{\sin. b}$ . But proposition V.  $\cos. A = \frac{\cos. a - \cos. b \cdot \cos. c}{\sin. b \cdot \sin. c}$ ,  $\cos. B = \frac{\cos. b - \cos. a \cdot \cos. c}{\sin. a \cdot \sin. c}$ , and  $\cos. C = \frac{\cos. c - \cos. a \cdot \cos. b}{\sin. a \cdot \sin. b}$ . From the last of these expressions  $\cos. c = \sin. a \cdot \sin. b \cdot \cos. C + \cos. a \cdot \cos. b$ , which, substituted for  $\cos. c$  in the expression for  $\cos. A$ , we have

$$\cos. A = \frac{\cos. a - \cos. b \cdot \sin. b \cdot \sin. a \cdot \cos. C - \cos. a \cdot \cos. b}{\sin. b \cdot \sin. c} =$$

$$\frac{\cos. a \cdot 1 - \cos. b \cdot \sin. b \cdot \cos. C \cdot \sin. a}{\sin. b \cdot \sin. c} = \frac{\cos. a \cdot \sin. b - \cos. b \cdot \sin. b \cos. a \cdot \cos. C \cdot \sin. a}{\sin. b \cdot \sin. c}$$

$$= \frac{\cos. a \cdot \sin. b - \cos. b \cdot \sin. a \cdot \cos. C}{\sin. c}; \text{ and similarly } \cos. B = \frac{\cos. b \cdot \sin. a - \cos. a \cdot \sin. b \cdot \cos. C}{\sin. c};$$

$$\text{whence } \cos. A + \cos. B = \frac{(\cos. a \cdot \sin. b + \cos. b \cdot \sin. a) 1 - \cos. C}{\sin. c} =$$

$$\frac{\sin. \overline{a+b} \cdot 2 \sin. \frac{C}{2}}{\sin. c}.$$

Resuming now the expression  $\frac{\sin. A \pm \sin. B}{\sin. B} = \frac{\sin. a \pm \sin. b}{\sin. b}$ , we have  $\sin. A \pm \sin. B = \sin. a$

$$\pm \sin. b \cdot \frac{\sin. B}{\sin. b}, \text{ whence } \frac{\sin. A + \sin. B}{\cos. A + \cos. B} = \frac{\sin. a + \sin. b}{2 \cdot \sin. a + b \cdot \sin. \frac{C}{2}} \cdot \frac{\sin. c \cdot \sin. B}{\sin. b} =$$

$$\frac{\sin. a + \sin. b}{2 \sin. a + b \cdot \sin. \frac{C}{2}} \cdot \sin. C, \text{ or } \tan. \frac{A+B}{2} = \frac{2 \sin. \frac{a+b}{2} \cdot \cos. \frac{a-b}{2}}{2 \cdot \sin. \frac{a+b}{2} \cdot \cos. \frac{a+b}{2} \cdot \sin. \frac{C}{2}} \cdot 2 \sin. \frac{C}{2} \cdot \cos$$



$$\frac{C}{2} = \frac{\cos. \frac{a-b}{2}}{\cos. \frac{a+b}{2}} \cdot \cot. \frac{C}{2}; \text{ whence } \cos. \frac{a+b}{2} \cdot \tan. \frac{A+B}{2} = \cos. \frac{a-b}{2} \cdot \cot. \frac{C}{2}.$$

By a similar process we obtain  $\frac{\sin. A - \sin. B}{\cos. A + \cos. B} = \sin. M$ ; whence  $\sin. \frac{C}{2} = \left( \sin. \frac{a+b}{2} + \sin. M \right) \cdot \left( \sin. \frac{a+b}{2} \oslash \sin. M \right) = \sin. \left( \frac{a+b}{2} + M \right) \cdot \sin. \left( \frac{a+b}{2} \oslash M \right)$  formula 5, proposition III., plane trigonometry; whence  $\sin. \frac{C}{2} =$

$$\sqrt{\sin. \left( \frac{a+b}{2} + M \right) \cdot \sin. \left( \frac{a+b}{2} \oslash M \right)}$$

$$\sin. \frac{a-b}{2} \cot. \frac{C}{2}; \text{ whence } \sin. \frac{a+b}{2} \cdot \tan. \frac{A-B}{2} = \sin. \frac{a-b}{2} \cdot \cot. \frac{C}{2}.$$

These two equations, which are very useful in finding the angles of a triangle when two sides and the included angle are given, are known by the name of Napier's Analogies, when they are converted into propositions.

Thus,  $\cos. \frac{a+b}{2} : \cos. \frac{a-b}{2} :: \cot. \frac{C}{2} : \tan. \frac{A+B}{2}$ , and  $\sin. \frac{a+b}{2} : \sin. \frac{a-b}{2} :: \cot. \frac{C}{2} : \tan. \frac{A-B}{2}$ . Whence  $A = \frac{A+B}{2} + \frac{A-B}{2}$ , and  $B = \frac{A+B}{2} - \frac{A-B}{2}$ .

Substituting for  $a, b, C, A$  and  $B$ , their values in the supplemental triangles we should obtain,  $\cos. \frac{A+B}{2} \cdot \tan. \frac{a+b}{2} = \cos. \frac{A-B}{2} \cdot \tan. \frac{c}{2}$  and  $\sin. \frac{A+B}{2} \cdot \tan. \frac{a-b}{2} = \sin. \frac{A-B}{2} \cdot \tan. \frac{c}{2}$ .

PROP. X.—In any triangle, as  $ABC$  fig. 25, if  $\sin. a \sin. b \cdot \cos. \frac{C}{2}$  be put =  $\sin. M$ , then  $\sin. \frac{c}{2} =$

$$\sqrt{\sin. \left( \frac{a+b}{2} + M \right) \cdot \sin. \left( \frac{a+b}{2} \oslash M \right)}.$$

For as  $\cos. C = \frac{\cos. a \cdot \cos. b}{\sin. a \cdot \sin. b}$ ,  $\cos. c = \cos. a \cdot \cos. b + \sin. a \cdot \sin. b \cdot \sin. C = \cos. a \cdot \cos. b + \sin. a \cdot \sin. b \left( 2 \cos. \frac{C}{2} - 1 \right) = \cos. a \cdot \cos. b + \sin. a \cdot \sin. b \cdot 2 \cos. \frac{C}{2}$ . Hence

$$1 - 2 \sin. \frac{C}{2} = \cos. a + \cos. b + \sin. a \cdot \sin. b.$$

$$2 \cos. \frac{C}{2}, \text{ or } \sin. \frac{C}{2} = \sin. \frac{a+b}{2} - \sin. a \cdot \sin. b \cdot \cos. \frac{C}{2}, \text{ or } \sin. \frac{C}{2} = \sin. \frac{a+b}{2} -$$

$$\sin. b \cdot \cos. \frac{C}{2}, \text{ or } \sin. \frac{C}{2} = \sin. \frac{a+b}{2} -$$

Before proceeding to exemplify the use of the preceding formulae, it may be well to recapitulate the rules demonstrated in spherical geometry for determining whether the parts of right angled spherical triangles are obtuse or acute.

1. The sides about the right angle are of the same affection as their opposite angles, and the oblique angles are of the same affection as their opposite sides.

2. When the sides including the right angle are of the same affection, that is both obtuse, or both acute, the side opposite the right angle is acute; but when the sides including the right angle are of different affections, that is, when one of them is acute and the other obtuse, the side opposite the right angle is obtuse.

3. When the oblique angles are of the same affection, the side opposite the right angle is acute; but, when the oblique angles are of different affections, the side opposite the right angle is obtuse.

4. When a side and its adjoining angle are of the same affection, the side opposite the right angle is acute; but, when a side and its adjoining angle are of different affections, the side opposite the right angle is obtuse.

To these we may add a property of oblique angled triangles which has also been proved in spherical geometry.

When the perpendicular falls within the triangle, the angles at the base are of the same affection; but, when it falls without the triangle, the angles at the base are not of the same affection.

Examples.—1. In the spherical triangle  $ABC$  (fig. 26), right angled at  $B$ , given  $AB 10^\circ 39' 40''$ ,  $\angle A 23^\circ 27' 42''$  to find the other parts.

To find  $AC$  we have by equation 7, proposition III.,  $\text{rad. } \cos. A = \cot. AC \cdot \tan. AB$ ; whence  $\cot. AC = \frac{\text{R. } \cos. A}{\tan. AB} = \frac{\cos. A}{\tan. AB}$ .

To find  $BC$  we have by equation 1, proposition III.,  $\text{rad. } \sin. AB = \tan. BC \cdot \cot. A$ ; whence  $\tan. BC = \frac{\text{rad. } \sin. AB}{\cot. A} = \frac{\sin. A \cdot \sin. AB}{\text{rad.}}$ .

And to find  $\angle C$ , we have by equation 10, proposition III.,  $\text{rad. } \cos. C = \cos. AB \cdot \sin. A$ ; whence  $\cos. C = \frac{\cos. AB \cdot \sin. A}{\text{rad.}}$ .

And, as  $AB$  is acute,  $\angle C$  is acute; and as  $\angle A$  is acute,  $BC$  is acute; and, as  $AB$  and  $\angle A$ , are of the same affection,  $AC$  is acute.

|   |           |   |           |                             |           |
|---|-----------|---|-----------|-----------------------------|-----------|
| A B, $10^{\circ} 39' 40''$ , cot.         | 10-725267 | A B, $10^{\circ} 39' 40''$ , sin.         | 9-267171  | A B, cos.                   | 9-992438  |
| $\angle A$ , $23^{\circ} 27' 42''$ , cos. | 9-962524  | $\angle A$ , $23^{\circ} 27' 42''$ , tan. | 9-637507  | $\angle A$ , sin.           | 9-600037  |
|   | 20-687791 |   | 15-904678 |                             | 19-592469 |
| rad. $10^{\circ}$                         |           | rad. $10^{\circ}$                         |           | rad. $10^{\circ}$           |           |
| A C $11^{\circ} 35' 46''$ cot.            | 10-687791 | B C $4^{\circ} 35' 26''$ tan.             | 8-904678  | C $66^{\circ} 58' 1''$ cos. | 9-592469  |

2. In the right angled spherical triangle ABC (fig. 26), given AB  $151^{\circ} 23' 9''$ , and BC  $16^{\circ} 35' 14''$  to find the other parts.

Here C, being of the same affection as AB, is obtuse; and A, being of the same affection as B C, is acute; and, as A B and B C are of different affections, A C is obtuse.

To find A C, we have equation 6, prop. III. rad. cos. A C = cos. A B  $\cdot$  cos. B C; whence

|                                 |           |                   |           |
|---------------------------------|-----------|-------------------|-----------|
| A B, $151^{\circ} 23' 9''$ cos. | 9-943427  | A B, sin          | 9-680253  |
| B C, $16^{\circ} 35' 14''$ cos. | 6-981540  | B C cot.          | 10-525974 |
|                                 | 19-924967 |                   | 20-206227 |
| rad. $10^{\circ}$               |           | rad. $10^{\circ}$ |           |

cos. A C =  $\frac{\cos. A B \cdot \cos. B C}{\text{rad.}}$  To find

$\angle A$ , we have equation 1, prop. III., rad. sin. A B = tan. B C  $\cdot$  cot. A; whence cot. A =  $\frac{\text{rad.} \cdot \sin. A B}{\tan. B C} = \frac{\cot. B C \cdot \sin. A B}{\text{rad.}}$ ; and similarly, cot. C =  $\frac{\cot. A B \cdot \sin. B C}{\text{rad.}}$ .

|                   |           |
|-------------------|-----------|
| A B, cot.         | 10-263174 |
| B C, sin.         | 9-455568  |
|                   | 19-718742 |
| rad. $10^{\circ}$ |           |

|                                  |          |                                       |          |  |          |
|----------------------------------|----------|---------------------------------------|----------|--|----------|
| A C, $147^{\circ} 16' 51''$ cos. | 9-924967 | $\angle A$ $31^{\circ} 52' 50''$ cot. | 9-206227 | $\angle C$ $117^{\circ} 37' 21''$ cot. | 9-718742 |
|----------------------------------|----------|---------------------------------------|----------|--|----------|

3. In the right angled spherical triangle ABC (fig. 26), given AB  $29^{\circ} 12' 50''$ , and its opposite angle C,  $37^{\circ} 26' 21''$ , to find the other parts.

If C A and C B were produced till they met, there would then be two right angled triangles, with a common side A B, corresponding to the given data, and the parts to be determined might be A C, B C, and  $\angle B A C$ , or their supplements.

To find A C, we have rad. sin. A B = sin A C, sin. C, whence sin. A C =  $\frac{\text{rad.} \cdot \sin. A B}{\sin. C}$  =

cosec. C  $\cdot$  sin. A B  $\frac{\text{rad.}}{\text{rad.}}$ , and hence A C =  $53^{\circ} 24' 13''$  or  $126^{\circ} 35' 47''$ .

To find B C, we have rad. sin. B C = tan. A B  $\cdot$  cot. C, whence sin. B C =  $\frac{\tan. A B \cdot \cot. C}{\text{rad.}}$ , and hence B C =  $46^{\circ} 55' 2''$ , or  $133^{\circ} 4' 58''$ .

To find  $\angle A$ , we have rad.  $\cdot$  cos. C = cos. A B  $\cdot$  sin. A; whence sin. A =  $\frac{\text{rad.} \cdot \cos. C}{\cos. A B}$  = sec. A B  $\cdot$  cos. C  $\frac{\text{rad.}}{\text{rad.}}$ ; and hence  $\angle A$  =  $65^{\circ} 27' 58''$ , or  $114^{\circ} 32' 2''$ .

4. In any spherical triangle, as A B C (fig. 22), given A C  $80^{\circ} 19'$ , A B  $120^{\circ} 47'$ , and  $\angle A$   $51^{\circ} 30'$ , to find the other parts.

Let C D be a perpendicular from C on A B; then rad.  $\cdot$  cos. A C = cot. A cot. A C D, whence cot. A C D =  $\frac{\text{rad.} \cdot \cos. A C}{\cot. A} = \frac{\tan. A \cdot \cos. A C}{\text{rad.}}$ , and A C D is acute, because A C and the angle

A are acute. Again, rad. cos. A = cot. A C, tan. A D, whence tan. A D =  $\frac{\text{rad.} \cdot \cos. A}{\cot. A C} = \frac{\tan. A C \cdot \cos. A}{\text{rad.}}$ , and A D is acute, as A is of the same affection as A C D.

|                                  |           |                   |           |
|----------------------------------|-----------|-------------------|-----------|
| A C $80^{\circ} 19'$ cos.        | 9-225833  | A C tan.          | 10-767935 |
| $\angle A$ $51^{\circ} 30'$ tan. | 10-099395 | $\angle A$ cos.   | 9-794150  |
|                                  | 19-325228 |                   | 20-562085 |
| rad. $10^{\circ}$                |           | rad. $10^{\circ}$ |           |

|                                 |          |                                |           |
|---------------------------------|----------|--------------------------------|-----------|
| A C D $78^{\circ} 3' 36''$ cot. | 9-325228 | A D $74^{\circ} 40' 17''$ tan. | 10-562085 |
|                                 |          | A B $120^{\circ} 47'$          | 0         |

B D 46 6 43

Now, tan. A D : tan. B D :: tan. A C D : tan. B C D; whence tan. B C D =  $\frac{\tan. B D \cdot \tan. A C D \cot. A D}{\text{rad.}^2}$ ; and cos. A D : cos. B D :: cos. A C : cos. B C; whence cos. B C =  $\frac{\cos. B D \cdot \cos. A C \cdot \sec. A D}{\text{rad.}^2}$ ; and sin. A D : sin. B D :: cot. A : cot. B; whence cot. B =  $\frac{\sin. B D \cdot \cot. A \cdot \text{cosec. A D}}{\text{rad.}^2}$ ; see the equations in prop. IV.



Moreover as  $\angle A$  is acute,  $DC$  is acute, and therefore  $\angle B$  is acute; and, as  $DB$  is also acute,  $DCB$  and  $BC$  are acute.

|   |   |   |   |  |   |
|---|---|---|---|--|---|
| $AD \overset{\circ}{74} \overset{'}{40} \overset{''}{17} \cot.$ | $9\cdot437919$                            | $AD \overset{\circ}{74} \overset{'}{40} \overset{''}{17} \sec.$ | $10\cdot577812$                           | $AD \overset{\circ}{74} \overset{'}{40} \overset{''}{17} \cos.$      | $10\cdot015731$                           |
| $BD \overset{\circ}{46} \overset{'}{6} \overset{''}{43} \tan.$  | $10\cdot016861$                           | $BD \overset{\circ}{46} \overset{'}{6} \overset{''}{43} \cos.$  | $9\cdot840891$                            | $BD \overset{\circ}{46} \overset{'}{6} \overset{''}{43} \sin.$       | $9\cdot857752$                            |
| $ACD \overset{\circ}{78} \overset{'}{3} \overset{''}{36} \tan.$ | $10\cdot674772$                           | $AC \overset{\circ}{80} \overset{'}{19} \overset{''}{0} \cos.$  | $9\cdot225833$                            | $\angle A \overset{\circ}{51} \overset{'}{30} \overset{''}{0} \cot.$ | $9\cdot900605$                            |
|   | $\frac{30\cdot129552}{\text{rad.}^2} 20'$ |   | $\frac{29\cdot644536}{\text{rad.}^2} 20'$ |  | $\frac{29\cdot774088}{\text{rad.}^2} 20'$ |

|  |                 |   |                |   |                |
|--|-----------------|---|----------------|---|----------------|
| $BCD \overset{\circ}{53} \overset{'}{25} \overset{''}{18} \tan.$ | $10\cdot129552$ | $BC \overset{\circ}{63} \overset{'}{49} \overset{''}{34} \cos.$ | $9\cdot644536$ | $B \overset{\circ}{59} \overset{'}{16} \overset{''}{20} \cot$ | $9\cdot774088$ |
| $ACD \overset{\circ}{78} \overset{'}{3} \overset{''}{36}$        |                 |   |                |   |                |

Or the angles may be found thus:—

$ACB \overset{\circ}{131} \overset{'}{28} \overset{''}{54}$

By Napier's analogies, Prop. IX., we have,

|   |   |
|---|---|
| $\tan. \frac{B+C}{2} = \frac{\sec. \frac{b+c}{2} \cdot \cos. \frac{b-c}{2} \cdot \cot. \frac{A}{2}}{\text{rad.}^2}$ | and $\tan. \frac{B-C}{2} = \frac{\text{cosect} \frac{b+c}{2} \cdot \sin. \frac{b-c}{2} \cdot \cot. \frac{A}{2}}{\text{rad.}^2}$ |
| $\frac{b+c}{2} 100^\circ 33' \sec. 10\cdot737327$   | $\frac{b+c}{2} \text{cosect} 10\cdot007404$   |
| $\frac{b \cos c}{2} 20^\circ 14' \cos. 9\cdot972338$  | $\frac{b \cos c}{2} \sin. 9\cdot538880$   |
| $\frac{A}{2} 25^\circ 45' \cot. 10\cdot316544$  | $\frac{A}{2} \cot. 10\cdot316644$   |
| $\frac{31\cdot026309}{\text{rad.}^2} 20'$   | $\frac{29\cdot862928}{\text{rad.}^2} 20'$   |

|   |  |
|---|--|
| $\frac{B+C}{2} 95^\circ 22' 37'' \tan. 11\cdot026309$ | $\frac{B \cos C}{2} 36^\circ 6' 17'' \tan. 9\cdot862928$ |
|---|--|

Hence  $C = \frac{B+C}{2} + \frac{B \cos C}{2} = 131^\circ 28' 54''$ , and  $B 59^\circ 16' 20''$ .—Here  $\frac{B+C}{2}$  is obtuse,

because  $\frac{b+c}{2}$  being obtuse its secant is negative, and  $\frac{b-c}{2}$  being acute its cosine is positive, and  $\frac{A}{2}$  being acute its cotangent is positive; whence the cotangent of  $\frac{B+C}{2}$  is negative, and consequently  $\frac{B+C}{2}$  is obtuse.

The side  $BC$  may be found independently of the angles, thus:—

|  |  |                              |
|--|--|------------------------------|
| By Prop. X. if $\sin M =$  | $\frac{\sqrt{\sin. b \cdot \sin. c \cdot \cos. \frac{A}{2}}}{\text{rad.}^2}$ | , then $\sin. \frac{C}{2} =$ |
| $\sqrt{\sin. \left( \frac{b+c}{2} + M \right) \cdot \sin. \left( \frac{b \cos c}{2} \cos M \right)}$ |  |                              |
| $b \ 80^\circ 19' \sin. \ 9\cdot993768$  | $\frac{b+c}{2} \ 100^\circ 33' \ 0$  |                              |
| $c \ 120^\circ 47' \sin. \ 9\cdot934048$   | $M \ 50 \ 58 \ 59$   |                              |
| $\frac{A}{2} \ 25^\circ 45', 2 \ \cos. \ 19\cdot909158$  |  |                              |
| <hr/> 39-836974  | $\frac{b+c}{2} M + 156 \ 31 \ 59 \ \sin. \ 9\cdot60012$                      |                              |
| 20'  | $\frac{b+c}{2} \cos M \ 44 \ 34 \ 1 \ \sin. \ 9\cdot84617$                   |                              |
| <hr/> 2)19-836974  |  |                              |
| <hr/> M 55° 58' 59" sin. 9-918487  |  | <hr/> 2)19-44630             |
|  | $\frac{BC}{2} \ 31^\circ 54' 47'' \sin. \ 9\cdot72315$                       |                              |

$BC \overset{\circ}{63} \overset{'}{49} \overset{''}{34}$

5. In any spherical triangle, as  $ABC$ , fig. 25, given  $A = 130^\circ 5' 22''$ ,  $B = 32^\circ 26' 6''$ , and the adjacent side  $C = 81^\circ 6' 12''$ , to find the other parts.

Here,  $\tan. \frac{a+b}{2} = \frac{\sec. \frac{A+B}{2} \cdot \cos. \frac{A-B}{2} \cdot \tan. \frac{c}{2}}{\text{rad.}^2}$ ; and  $\tan. \frac{a-b}{2} =$

$$\frac{\text{cosect. } \frac{A+B}{2} \cdot \sin. \frac{A-B}{2} \cdot \tan. \frac{c}{2}}{\text{rad.}^2}, a = \frac{a+b}{2} + \frac{a-b}{2}, b = \frac{a+b}{2} + \frac{a-b}{2}, \text{ and } \sin. C = \frac{\sin. A \cdot \sin. C \cdot \text{cosect. } a}{\text{rad.}^2}$$

$$\frac{A+B}{2} \quad 81 \ 15 \ 44 \ \text{sec.} \quad 10.818406$$

$$\frac{A-B}{2} \quad 48 \ 49 \ 38 \ \text{cos.} \quad 9.818445$$

$$\frac{c}{2} \quad 25 \ 33 \ 6 \ \tan \quad 9.679503$$

$$\frac{30.316354}{20.} \quad \text{rad.}^2$$

$$\frac{a+b}{2} \quad 64^\circ \ 14' \ 6'' \ \tan. \quad 10.316354$$

$$\frac{A+B}{2} \text{ cosect. } 10.005070$$

$$\frac{A-B}{2} \sin \quad 9.876638$$

$$\frac{c}{2} \tan. \quad 9.679503$$

$$\frac{a-b}{2} 20^\circ \ 0' \ 22'' \tan. \quad 9.56121$$

Hence  $a = 84^\circ \ 14' \ 28''$ , and  $b = 44^\circ \ 13' \ 44''$ .

|   |     |    |    |        |           |
|---|-----|----|----|--------|-----------|
| A | 130 | 5  | 22 | sin.   | 9.883684  |
| c | 51  | 6  | 12 | sin.   | 9.891135  |
| a | 84  | 14 | 28 | cosect | 10.002197 |

$$\frac{29.777015}{20.} \quad \text{rad.}^2$$

$$C \quad 36 \ 45 \ 28 \ \text{sin.} \quad 9.777015$$

6. In any triangle, as ABC, fig. 25, given  $a = 80^\circ \ 5' \ 4''$ ,  $b = 70^\circ \ 10' \ 30''$ , and the angle  $A = 33^\circ \ 15' \ 7''$ , to find the other parts.

From equation 1, prop. III.,  $\sin. B = \frac{\sin. A \cdot \sin. b \cdot \text{cosect. } a}{\text{rad.}^2}$ , and, by proposition IX., cot.

$$\frac{C}{2} = \frac{\tan. \frac{A+B}{2} \cdot \cos. \frac{a+b}{2} \cdot \text{sect. } \frac{a-b}{2}}{\text{rad.}^2}, \text{ and } \tan. \frac{c}{2} = \frac{\tan. \frac{a+b}{2} \cdot \cos. \frac{A+B}{2} \cdot \text{sect. } \frac{A-B}{2}}{\text{rad.}^2}$$

|   |    |    |    |         |           |                 |    |    |    |      |          |                 |    |    |    |      |           |
|---|----|----|----|---------|-----------|-----------------|----|----|----|------|----------|-----------------|----|----|----|------|-----------|
| A | 33 | 15 | 7  | sin.    | 9.739035  | $\frac{a+b}{2}$ | 75 | 7  | 47 | cos. | 9.409310 | $\frac{a+b}{2}$ | 75 | 7  | 47 | tan. | 10.575896 |
| b | 70 | 10 | 30 | sin.    | 9.973466  | $\frac{a-b}{2}$ | 32 | 24 | 52 | tan. | 9.802755 | $\frac{A+B}{2}$ | 32 | 24 | 52 | cos. | 9.926442  |
| a | 80 | 5  | 4  | cosect. | 10.006536 | $\frac{A+B}{2}$ | 32 | 24 | 52 | tan. | 9.802755 | $\frac{A+B}{2}$ | 32 | 24 | 52 | cos. | 9.926442  |

|  |  |  |  |  |           |                 |   |    |    |       |           |                 |   |    |    |      |           |
|--|--|--|--|--|-----------|-----------------|---|----|----|-------|-----------|-----------------|---|----|----|------|-----------|
|  |  |  |  |  | 29.719037 | $\frac{a-b}{2}$ | 4 | 57 | 17 | sect. | 10.001626 | $\frac{A-B}{2}$ | 0 | 50 | 15 | sect | 10.000046 |
|  |  |  |  |  | rad. $^2$ | 20.             |   |    |    |       |           |                 |   |    |    |      |           |

|   |    |    |    |      |          |  |  |  |  |  |           |     |  |  |  |  |  |
|---|----|----|----|------|----------|--|--|--|--|--|-----------|-----|--|--|--|--|--|
| B | 31 | 34 | 38 | sin. | 9.719037 |  |  |  |  |  |           |     |  |  |  |  |  |
|   |    |    |    |      |          |  |  |  |  |  | 29.213691 |     |  |  |  |  |  |
|   |    |    |    |      |          |  |  |  |  |  | rad. $^2$ | 20. |  |  |  |  |  |

|  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|
|  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
|  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
|  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |

$$C \quad 161 \ 25 \ 17$$

7. In any triangle, as ABC fig. 22, given AB (c)  $74^\circ \ 51' \ 50''$ , AC (b)  $37^\circ \ 47' \ 18''$ , and BC (a)  $50^\circ \ 54' \ 32''$ , to find the angles.

We shall find each of the angles by a different process, to exemplify the application of different formulæ.

By Prop. IV.,  $\tan. \frac{BD \oslash AD}{2} = \frac{\tan. \frac{BC+AC}{2} \cdot \tan. \frac{BC \oslash AC}{2} \cdot \cot. \frac{BD+AD}{2}}{\text{rad.}^2}$ ; and

$$AD = \frac{AB}{2} \cdot \frac{BD \oslash AD}{2}; \text{ and } \cos. A = \frac{\cot. AC \cdot \tan. AD}{\text{rad.}^2}. \text{ By proposition VI. } \cos. \frac{B}{2} =$$

$$\sqrt{\frac{\sin. S \cdot \sin. S-b \cdot \text{cosect. } a \cdot \text{cosect. } c}{\text{rad.}^2}}, \text{ and } \sin. \frac{C}{2} = \sqrt{\frac{\sin. S-a \cdot \sin. S-b \cdot \text{cosect. } a \cdot \text{cosect. } b}{\text{rad.}^2}},$$

where  $S = \frac{a+b+c}{2}$ .



$$\begin{array}{rcl} \frac{BC+AC}{2} & 44 \ 20 \ 55 \tan. & 0.090124 \\ \frac{BC \propto AC}{2} & 6 \ 33 \ 37 \tan. & 9.060702 \\ \frac{BD+AD}{2} & 37 \ 25 \ 55 \cot. & 10.116088 \\ & & \hline & & 29.166914 \\ & \text{rad.}^2 & 20. \end{array}$$

$$\begin{array}{rcl} \frac{BD-AD}{2} & 8 \ 21 \ 18 \tan. & 9.169914 \\ & & \hline AD = 29 \ 4 \ 37 \end{array}$$

$$\begin{array}{rcl} S & 81 \ 46 \ 50 \sin. & 9.995516 \\ S-b & 43 \ 59 \ 32 \ sin. & 9.841710 \\ a & 50 \ 54 \ 32 \ cosect. & 10.110058 \\ c & 74 \ 51 \ 50 \ cosect. & 10.015334 \\ & & \hline & & 39.962618 \\ & \text{rad.}^2 & 20. \end{array}$$

$$\begin{array}{rcl} \frac{B}{2} & 16 \ 41 \ 22\frac{1}{2} \cos. & 9.981309 \\ & & \hline B & 33 \ 22 \ 45 \end{array}$$

$$\begin{array}{rcl} AC & 37 \ 47 \ 18 \ cot. & 10.110501 \\ AD & 29 \ 4 \ 37 \ tan. & 9.745126 \\ & & \hline & & 19.855627 \\ & \text{rad.} & 10. \end{array}$$

$$A \ 44 \ 10 \ 41 \ cos. \ 9.855627$$

$$\begin{array}{rcl} S-a & 30 \ 52 \ 18 \ sin. & 9.710216 \\ S-b & 43 \ 59 \ 32 \ sin. & 9.841710 \\ a & 50 \ 54 \ 32 \ cosect. & 10.110058 \\ b & 37 \ 47 \ 18 \ cosect. & 10.212719 \\ & & \hline & & 39.874703 \\ & \text{rad.}^2 & 20. \end{array}$$

$$\begin{array}{rcl} \frac{C}{2} & 59 \ 57 \ 32 \ sin. & 9.937351 \\ & & \hline C & 119 \ 55 \ 4 \end{array}$$

ON THE AREAS OF SPHERICAL TRIANGLES AND POLYGONS.

PROP. I.—In every spherical triangle, as two right angles is to the excess of the three angles of the triangle above two right angles, so is a great circle of the sphere to the area of the triangle.

Let ABC, fig. 27, be a spherical triangle. Complete one of its sides, as BC, into the circle BCEF, which may be supposed to bound the upper hemisphere. Also prolong AB, AC, at both ends till they form semicircles estimated from each angle, that is, till BAE, BAD, CAF, and ACD, be each a semicircle; then CBF and BFE are semicircles also; and, consequently, the triangle AEF on the anterior hemisphere is equal to the triangle BCD in the opposite hemisphere. Putting  $m m'$  to represent the surfaces of these triangles,  $p$  for that of the triangle BAF,  $q$  for that of CAE, and  $a$  for that of the proposed triangle ABC; then  $a$  and  $m'$  together (or their equal  $a$  and  $m$  together) make  $\frac{1}{2}$  the surface of a spherical lune comprehended between the two semicircles ACD, ABD, inclined in the angle A;  $a$  and  $p$  together make up the base included between the semicircles CAF, CBF, making the angle C;  $a$  and  $q$  together make up the base included between the semicircles BCE, BAE, making the angle B; and the surface of each of these lunes is to that of the hemisphere as the angle made by the comprehending circle is to two right angles. If

therefore S be put for the surface of the hemisphere, and R for two right angles.

$$\begin{array}{l} R : A :: S : a + m \\ R : B :: S : a + q \\ R : C :: S : a + p \end{array}$$

$$\text{whence } a = S \cdot \frac{A+B+C-R}{2R}$$

Hence the excess of the three angles of a spherical triangle above two right angles, termed technically the spherical excess, furnishes a correct measure of the mean of the triangle.

PROP. II.—In every spherical polygon, as two right angles is to the excess of the sum of its angles above the product of two right angles by two less than the number of its angles, so is a great circle of the sphere to the area of the polygon.

For, if the polygon be conceived to be divided into as many triangles as it has sides, by great circles ~~drawn~~ from the angles to a point within the polygon, forming at that point the vertical angles of all the triangles; then, by proposition I.,  $a$  the area of any one triangle =  $S \cdot \frac{A+B+C-R}{2R}$

therefore putting P for the sum of all the angles of the polygon,  $n$  for their number; and observing that the sum of all the vertical angles of its constituent triangle is evidently equal to four right angles, we have the area of the poly

$$\text{gon} = S \cdot \frac{P - n - 2 \cdot R}{2R}$$

**TRIGYNIA** (from *τρεις*, three, and *γυνή*, a woman), in botany, an order of plants under various genera in the Linnæan system, comprehending such species as have three pistils, or female parts. See **BOTANY**, Index.

**TRIHLATÆ** (from *tres*, three, and *hilum*, an external mark on the seed), the twenty-third class in Linnæus's Fragments of a natural method, consisting of plants with three seeds, which are marked with an external cicatrix or scar, where they are fastened within the fruit. See **BOTANY**, Index.

**TRILL**, *n. s.*, *v. a.*, & *v. n.* Ital. *trillo*. Quaver; tremulousness of music: to utter quavering: to trickle.

Did your letters pierce the queen to any demonstration of grief?

—Aye! she took 'em; read 'em in my presence;  
And now and then an ample tear *trilled* down  
Her delicate cheek. *Shakspeare. King Lear.*

Am I called upon the grave debate,  
To judge of *trilling* notes and tripping feet?

*Dryden.*

Long has a race of heroes filled the stage,  
That rant by note, and through the gamut rage;  
In songs and airs express their martial fire,  
Combat in *trills*, and in a fugue expire. *Addison.*

Through the soft silence of the listning night,  
The sober-suited songstress *trills* her lay. *Thomson.*

**TRILLIUM**, in botany, herb Paris of America, or herb true-love of Canada, a genus of plants belonging to the class of hexandria, and in the order of trigynia, and, in the natural method, ranking in the eleventh order Samentosæ. It has a three-leaved spreading empalement, and three oval petals; it has six awl-shaped stamina. terminated by oblong summits, and a roundish germen, with three recurved styles, crowned by male stigmata; the germen becomes a roundish berry, with three cells, filled with roundish seeds. There are three species, all natives of America; one of them is called three-leaved nightshade.

**TRIM**, *adj.*, *v. a.* *v. n.* & *n. s.* } Saxon *ge-*  
**TRIM'LY**, *adv.* } *trymmeð*,  
**TRIM'MER**, *n. s.* } completed.  
**TRIM'MING**. } Nice; smug;

dressed up. Used in modern times with slight contempt: the adverb corresponding with the adjective: as a verb active to deck or fit out; shave; clip; adjust; balance: as a verb neuter to balance; fluctuate between two parties: a trimmer is one who so fluctuates; a turncoat; also a piece of wood inserted: trimming is an appendage to dress.

Mephibosheth had neither dressed his feet, nor trimmed his beard. *2 Sam. xix. 24.*

The mother, if of the household of our lady, will have her son cunning and bold, in making him to live *trimly*. *Ascham.*

If one paine in cottage doth take,  
When t' other *trim* bowers do make.

*Tusser's Husbandry.*

Her yellow golden hair  
Was *trimly* woven, and in tresses wrought.

*Spenser.*

Our youth got me to play the woman's part,  
And I was *trimmed* in Julia's gown. *Shakspeare.*  
A *trim* exploit, a mauly enterprise,  
To conjure tears up in a poor maid's eyes  
With your derision.

*Id. Midsummer Night's Dream.*

I found her *trimming* up the diadem  
On her dead mistress. *Id. Antony and Cleopatra.*

They come like sacrifices in their *trim*,  
And to the fire-eyed maid of smoaky war,  
All hot, and bleeding, will we offer them.

*Shakspeare.*

Pennyroyal and orpin they use in the country to  
*trim* their houses, binding it with a lath against a wall. *Bacon.*

Yet are the men more loose than they!  
More kembd, and bathed, and rubb'd, and *trimmed*,  
More sleek, more soft, and slacker limbed.

*Ben Jonson.*

Two arts attend architecture, like her principal  
gentlewomen, to dress and *trim* her, picture and sculpture. *Wotton.*

The Dorick order has, in comparison of those that follow, a more masculine aspect, and little *trimmer* than the Tuscan that went before, save a sober garnishment now and then of lion's heads in the cornice, and of triglyphs and metopes always in the frieze. *Id. Architect.*

The barber may *trim* religion as he pleases.

*Hovel.*

Clip and *trim* those tender strings like a beard.

*Browne.*

Dost thou not blush to live so like a beast,  
So *trim*, so dissolute, so loosely drest?

*Dryden's Persius.*

He who would hear what every fool could say,  
Would never fix his thought, but *trim* his time away.

*Dryden.*

The same bat taken after by a weazel begged for mercy: No, says the weazel, no mercy to a mouse: Well, says t'other, but you may see by my wings that I am a bird; and so the bat 'scaped in both by *playing the trimmer*. *L'Estrange.*

*Trim* off the small superfluous branches.

*Mortimer.*

Before they pin up the frame of ground-plates, they must fit in the summer and the girders, and all the joists and the *trimmers* for the stair-case.

*Mozon's Mechanical Exercises.*

If such by *trimming* and time-serving, which are but two words for the same thing, betray the church by nauseating her pious orders, this will produce confusion. *South.*

Judgment without vivacity of imagination is too heavy, and like a dress without fancy; and the last without the first is too gay, and but all *trimming*.

*Garth's Preface to Ovid.*

Sir Roger put his coachman to *trim* the boat.

*Spectator.*

To blast the living, gave the dead their due,  
And wreaths herself had tainted, *trimmed* anew.

*Tickel.*

Eacn muse in Leo's golden days  
Starts from her trance, and *trims* her withered bays. *Pope.*

To confound his hated coin,  
All parties and religions joiu,  
Whigs, tories, *trimmers*. *Swift.*  
O'er globes, and sceptres, now, on thrones it swells,  
Now, *trims* the midnight lamp in college cells.

*Young.*

**TRIMMER** (Sarah), a modern literary lady, was the daughter of Mr. Joshua Kirby, who held the situation of clerk of the works at Kew Palace, and was himself a draughtsman and instructor to some of the then younger branches of the royal family. This daughter was born about the commencement of 1741 at Ipswich, and was early initiated in classical as well as English literature. She married Mr. Trimmer in the year 1762



by whom she had twelve children. She was distinguished through life as an active and benevolent instructress of youth, for whose use she produced a variety of ingenious tracts, several of which have been adopted by the Society for Promoting Christian Knowledge. Her death took place in the winter of 1810.

TRINACRIA, TRINACRIS, ancient names of Sicily from its triangular form.

TRINAL, *adj.* Lat. *trinus*. Threefold.

Like many an angel's voice,  
Singing before the eternal Majesty,  
In their trinal triplicity on high. *Spenser.*

That far-beaming blaze of majesty,  
Wherewith he wont at heaven's high council table  
To sit the midst of trinal unity,  
He laid aside. *Milton.*

TRINCOMALEE, a town, fortress, and fine harbour of Ceylon, situated on the north-east side of the island. The town is of greater extent than Colombo, but contains less population and fewer houses. The fort is strong and commands the principal bays, particularly the entrance to the harbour. It has also a citadel called Fort Ostenburgh erected on a cliff which projects into the sea, and which cannot be attacked till after the capture of the lower fort. Within the bay the shores are so bold, and the waters so deep, that vessels may moor alongside; but unfortunately the tides do not rise sufficiently high to admit of wet docks, and the men of war are obliged to take out all their guns, &c., in order to careen. The great expectations that were formed of this place by the British government have, however, not been realised: for although the naval department, stores, &c., have been transferred thither from Madras, owing to the barren and unproductive nature of the surrounding territory, but few inhabitants have been collected, and provisions are scarce. The first Europeans who possessed themselves of this place were the Portuguese. It was taken from them by the Dutch, with whom it remained till the year 1782, when it was captured by the British; but, a very inadequate garrison having been left to defend it, it was taken with ease by the French admiral Suffrein, who restored it to the Dutch. In the year 1795 it was again taken by the British, after a siege of three weeks; and has ever since remained in our possession. Long.  $81^{\circ} 23' E.$ , lat.  $8^{\circ} 31' N.$

TRINE, *n. s. & v. a.* Fr. *trine*; Lat. *trinus*. An aspect of planets placed in three angles of a trigon, in which they are supposed by astrologers to be eminently benign: to put in a trine aspect.

To the other five,  
Their planetary motions, and aspects,  
In sextile, square, and trine and opposite,  
Of noxious efficacy. *Milton's Paradise Lost.*

This advantage age from youth has won,  
As not to be outridden, though outrun;  
By fortune he has now to Venus trined,  
And with stern Mars in Capricorn was joined.

*Dryden.*

From Aries right-ways draw a line, to end  
In the same round, and let that line subtend  
An equal triangle; now since the lines  
Must three times touch the round, and meet three  
signs,

Where'er they meet in angles those are trines.

*Creech.*

TRING, a market-town in Dacorum hundred, Herts, on the border of Bucks, near the Braunstons canal, four miles from Wendover, and thirty-one and a half from London. This is an exceedingly neat town, and contains many handsome buildings. The church is a Gothic structure, with a square tower; the chancel contains many handsome and ancient monuments. Here is a charity-school for teaching and clothing twenty boys. At a village called Little Tring, in this parish, rises one of the heads of the Thames. The Roman road which passes here, called the Ickneld way, is extremely bad during the winter season. Market on Friday is well supplied with corn. Fairs June 25th and September 29th. It is a curacy, united with Long Marston, in the patronage of Christ Church College, Oxford.

TRINGA, the sandpiper, a genus of birds belonging to the order of grallæ. The bill is somewhat tapering, and of the length of the head; the nostrils are small; the toes four, divided, the hind toe being frequently raised from the ground. According to Dr. Latham there are forty-five species, of which eighteen are British.

TRINIDAD, an island of the Atlantic opposite the coast of Cumana, from which it is separated by the gulf of Paria, which varies in its breadth, being on an average about seventy-five miles. At its southern and northern extremities, however, Trinidad approaches to within ten or eleven miles of America. The island is of an irregular square form, having two points stretching to the west from its north and south corners. According to the latest surveys its longest lines are from Cape Galera on the north-east to Point Ycaque, or Icacque, on the south-west, seventy-nine miles, and from Cape Galeota on the south-east to Cape Blanca on the north, fifty-six miles.

Trinidad is the most fertile and beautiful of all the Leeward islands, abounding in the finest woods, of large dimensions, fit for ship-building as well as ornamental purposes. The red cedar is found in all parts. Many trees brought from India and Otaheite also flourish here. Cinnamon is becoming abundant, and is already sold in the markets, and the clove is found to thrive. Its sugar is excellent, and there is more land applicable for its culture in Trinidad we are told than in Jamaica. But cocoa, from not being subject to the demand of great capitals, bids fair to be the principal staple. The greatest part of the island is excellently adapted for this tree; and it has been found that it will bear its fruit, or pod, much sooner than generally was believed. Nature has furnished for it a tree called the bois immortelle, or, by the Spaniards, la madre del cacao, in English, mother of the cocoa. It is planted at equal distances amongst the cocoa, and in the driest weather collects the dews, moistens, shades, and nourishes it. The cocoa once bearing continues to do so for many years. Coffee is excellent in its quality, but only planted on small properties, and does not add much to the revenue. The indigo is equal to the Guatimala, from which probably it was originally brought. Tobacco also grows here, and is of a superior quality; and the grape-vines which have been brought from the south of France, or from

Spain, equal in flavor their parent stocks. In many quarters of the island quarries of limestone, resembling, in some degree, marble, abound. Bricks and articles of pottery are likewise burnt. Of late tanneries have been established, and a substitute for hemp in making white rope has been discovered, and proved of use to the planters. On extensive wild savannahs quantities of cattle, horses, and mules, are fed in common, but might be extended to exportation, and the woods abound with game. Trinidad is situated out of the parallel of hurricanes, which have never as yet shifted so far to the south; although, on the 12th of August, 1810, a very violent indication happened; it luckily lasted only a few hours, blowing only from the south-west. Shocks of earthquakes have been felt, but very slight, and not of such consequence as to cause alarm.

Dr. Nugent, in the Geological Transactions, has thus described the great natural curiosity of this island, the pitch lake:—

‘We ascended the hill, which was entirely composed of this rock, to the plantation, where we procured a negro guide, who conducted us through a wood about three-quarters of a mile. We now perceived a strong sulphureous and pitchy smell, like that of burning coal, and soon after had a view of the lake, which at first sight appeared to be an expanse of still water, frequently interrupted by clumps of dwarf trees or islets of rushes and shrubs; but, on a nearer approach, we found it to be in reality an extensive plain of mineral pitch, with frequent crevices and chasms filled with water. The singularity of the scene was altogether so great, that it was some time before I could recover from my surprise so as to investigate it minutely. The surface of the lake is of the color of ashes, and at this season was not polished or smooth so as to be slippery; the hardness or consistence was such as to bear any weight; and it was not adhesive, though it partially received the impression of the foot; it bore us without any tremulous motion whatever, and several head of cattle were browsing on it in perfect security. In the dry season, however, the surface is much more yielding, and must be in a state approaching to fluidity, as is shown by pieces of recent wood and other substances being enveloped in it. Even large branches of trees, which were a foot above the level, had in some way become enveloped in the bituminous matter. The interstices or chasms are very numerous, ramifying and joining in every direction; and in the wet season, being filled with water, present the only obstacle to walking over the surface. These cavities are generally deep in proportion to their width, some being only a few inches in depth, others several feet, and many almost unfathomable: the water in them is good and uncontaminated by the pitch; the people of the neighbourhood derive their supply from this source, and refresh themselves by bathing in it; fish are caught in it, and particularly a very good species of mullet. The arrangement of the chasms is very singular; the sides, which of course are formed of the pitch, are invariably shelving from the surface, so as nearly to meet at the bottom, but then they bulge out towards each other with a considerable degree of con-

vexity. This may be supposed to arise from the tendency in the pitch slowly to coalesce whenever softened by the intensity of the sun’s rays. These crevices are known occasionally to close up entirely, and we saw many marks or seams from this cause. How these crevices originate it may not be so easy to explain. One of our party suggested that the whole mass of pitch might be supported by the water which made its way through accidental rents; but in the solid state it is of greater specific gravity than water, for several bits thrown into one of the pools immediately sank. The lake (I call it so because I think the common name appropriate enough) contains many islets covered with long grass and shrubs, which are the haunts of birds of the most exquisite plumage, as the pools are of snipe and plover. Alligators are also said to abound here; but it was not our lot to encounter any of these animals. It is not easy to state precisely the extent of this great collection of pitch; the line between it and the neighbouring soil is not always well defined, and indeed it appears to form the substratum of the surrounding tract of land. We may say, however, that it is bounded on the north and west sides by the sea, on the south by the rocky eminence of porcelain jasper before mentioned, and on the east by the usual argillaceous soil of the country; the main body may perhaps be estimated at three miles in circumference; the depth cannot be ascertained, and no subjacent rock or soil can be discovered. Where the bitumen is slightly covered by soil there are plantations of cassava, plantains, and pine-apples, the last of which grow with luxuriance and attain to great perfection. There are three or four French and one English sugar estates in the immediate neighbourhood: our opinion of the soil did not, however, coincide with that of Mr. Anderson, who, in the account he gave some years ago, thought it very fertile.

‘It is worthy of remark that the main body of the pitch, which may properly be called the lake, is situated higher than the adjoining land, and that you descend by a gentle slope to the sea, where the pitch is much contaminated by the sand of the beach. During the dry season, as I have before remarked, this pitch is much softened, so that different bodies have been known slowly to sink into it. If a quantity be cut out, the cavity left will be shortly filled up; and I have heard it related that when the Spaniards undertook formerly to prepare the pitch for economical purposes, and had imprudently erected their cauldrons on the very lake, they completely sank in the course of a night so as to defeat their intentions. Numberless proofs are given of its being at times in this softened state: the negro houses of the vicinage, for instance, built by driving posts in the earth, frequently are twisted or sunk on one side. In many places it seems to have actually overflowed like lava, and presents the wrinkled appearance which a sluggish substance would exhibit in motion.’

Afterwards he says—‘I was at Antigua in 1809, when a transport arrived laden with this pitch for the use of the dock-yard at English Harbour: it had evidently been hastily collected with little care or zeal from the beach, and was



of course much contaminated with sand and other foreign substances. The best way would probably be to have it properly prepared on the spot, and brought to the state in which it may be serviceable, previously to its exportation. I have frequently seen it used to pay the bottoms of small vessels, for which it is particularly well adapted, as it preserves them from the numerous tribes of worms so abundant in tropical countries. There seems indeed no reason why it should not, when duly prepared and attenuated, be applicable to all the purposes of the petroleum of Zante, a well-known article of commerce in the Adriatic, or that of the district in Burmah, where 400,000 hogsheads are said to be collected annually.

The north side of the island is a ridge of hilly mountains, which end at Toco, or Point Galera, and seem formerly to have been a continuation of the Parian mountains. From the ridges or summits of these hills abundance of the finest and clearest streams issue on both sides, and contribute on the south side to form the river Caroni, which is considerable, and can be navigated by flats and canoes some distance into the interior of the island. Another ridge of hills commences at L'Ebranche on the east side, and runs in a south-west course, called the Monserrat Hills; the rivers or streams from which are distinguished by a yellow clayish color. A canal has been traced by order of government by lieutenant-colonel Rutherford, then surveyor-general, from the mouth of the Caroni to L'Ebranche, across the island, and passing through the valley which lies between these two ridges, which, if ever completed, must produce incalculable advantages to the colony. The mornings and evenings in Trinidad are delightful, and the nights invariably cool and refreshing. Upon the whole the island is undoubtedly fully as healthy as any part of the new world. The climate is less moist than that of Guiana, and not so dry as that of Cumana. The winter or rainy season begins there in June and ends in October, as in all the islands of the Caribbean Sea. But there is very little rain, sometimes none, in June, though the return of the heat is invariable from the end of May. With November begins the delightful season; it is then that the east and north-easterly winds blow; those currents of air come from the cold regions of North America, probably because the laws of equilibrium require that the cold and dense air of the north should fill the place left for it by the dilatation of the hot and light air of the tropics. During this spring the thermometer is usually, in the day time, at 80° Fahrenheit, and during the night it falls to 60°, and sometimes even to 50° in tolerably elevated spots.

Trinidad, discovered by Columbus on the 31st of July, 1498, was not, however, taken possession of by the Spaniards till the year 1588, when their establishment was preceded by the almost total destruction of the Indians. Most of those who escaped found a slower and more horrible fate in the works of the mines. Some, however, owed their lives to the paternal and courageous care of the apostle of the new world, the virtuous Las Casas. The labors of the Indians soon fertilised the land for the benefit of their conquerors, and some negroes were afterwards

taken there and united in the work of the natives. Sir Walter Raleigh, who visited Trinidad in 1593, relates that the inhabitants then cultivated excellent tobacco and the sugar cane. The Spaniards assured him that the rivers were full of gold dust. The full importance of this colony, however, was not discovered till 1783, when an edict was issued permitting all foreigners professing the Roman Catholic religion to establish themselves in this colony. It protected, at the same time, for a period of five years, all new inhabitants from debts contracted in the countries they had quitted. In consequence crowds of new colonists crowded from Europe, and from the British and French possessions. The inhabitants increased so rapidly, that, though in 1783 the whole amounted only to 2763, they were estimated six years afterwards at

|                       |
|-----------------------|
| 2,151 whites          |
| 4,467 people of color |
| 10,100 negroes        |
| 2,200 Indians         |

Total 18,918

This soon changed the face of the island; and where a short time before only some miserable huts of fishermen covered with palm leaves were seen, there arose, in the short space of four years, a town regularly built, which, by the size and convenience of its port, and the industry of its inhabitants, became one of the most commercial in the new world, justly meriting the name of Port Spain from the mother country. On the other hand the disturbances which broke out in the French colonies at the beginning of the revolution, and the violence of various parties, alternately conquerors and conquered, brought a great number of proprietors from Martinico, Guadeloupe, and St. Lucia, to this island, as also many of the ancient French inhabitants of Grenada and Tobago; and the governor of the island, don Josef Chacon, took a wise advantage of these events. He received with equal attention all those who brought thither their industry and their capital, without troubling himself about their opinions, and by this conduct soon carried the prosperity of the colony to the highest pitch. In 1797 it capitulated to a British force under the command of sir Ralph Abercrombie. From this period till the peace of Amiens in 1802 the population increased from 18,918 to 24,239 inhabitants; the produce of sugar had also greatly increased, being almost doubled. In 1783 the tonnage of the vessels employed in the commerce of Trinidad was only 150 tons; in 1802 sixty vessels were employed whose tonnage amounted to 60,000 tons. The emigration which took place from St. Domingo and the British colonies to Trinidad, after the peace of Amiens, had increased its population in 1807 to 31,000, of which 21,000 were slaves. Trinidad has since this period remained in the hands of the British. The north-east point of the island is in long. 60° 55' 25" W.; lat. 10° 51' N.

TRINIDAD, a city of the island of Cuba, situate on the south side of the island and on the shore of a river of the same name, with a celebrated port. Its natives, who are much given to sea-

faring, are good mariners. The English pillaged it in 1704; and a severe hurricane was felt here on the 14th of October, 1812: the houses which had fallen, and were reduced to a tottering condition, amounted to 500. In the country some breeding pens had lost upwards of 500 head of cattle; many of the vessels which were at anchor in the harbour of Casilda were driven on shore and others sunk. This city lies in long. 80° 6' W., lat. 21° 42' N.

**TRINITARIANS**, ORDER OF, an order instituted at Rome, A. D. 1198. The founders were John de Matha and Felix de Valois. The pope permitted them to establish this order for the deliverance of captives who groaned under the tyranny of the infidels: he gave them as a habit a white gown ornamented with a red and blue cross. This order possessed at one time about 250 convents in thirteen different provinces. There was formerly the province of England, where this order had forty-three houses; that of Scotland, where it had nine; and that of Ireland, where it had fifty-two.

**TRINITY**, *n. s.* Fr. *trinité*; Lat. *trinitas*. The ineffable union of the Three Persons in the Godhead. See **THEOLOGY**.

Touching the picture of the *Trinity*, I hold it blasphemous and utterly unlawful. *Peacocks.*

In my whole essay there is not any thing like an objection against the *Trinity*. *Locke.*

**TRINITY SUNDAY**, a festival observed on the Sunday next after Whitsunday in honor of the holy Trinity. The observation of this festival was first enjoined in the council of Arles, A. D. 1260.

**TRINITY**, or **TRINIDADO**, a river of Mexico, which takes its rise in Louisiana, in long. 99° W., lat. 34° N., enters the province of San Luis Potosi, and discharges itself into Galvestan's Bay, in lat. 29° 30' N. It has a meandering course of 350 miles in length.

**TRINITY**, or **LA TRINITE**, a sea-port town of the island of Martinico. The harbour is formed on the south-east side by the Point Caravelle, which is two leagues in length; and on the other side by a very high hill, about 350 or 400 paces in length, which only joins to the mainland by an isthmus not above 200 feet broad. The east side, opposite to the bottom of this bay, is stopped up by a chain of rocks, which appear level with the water when the ebb tide is spent. The town here is a thriving place.

**TRIN'KET**, *n. s.* This Skinner derives from Fr. *tringuet*; Ital. *trinchetto*, a topsail. Dr. Johnson imagines it to be corrupted from trick, some petty finery or decoration. Toys; ornaments of dress; superfluities of decoration.

What husbandlie husbands, except they be fooles, But handsum have storehouse for *trinkets* and tooles? *Tusser.*

Beauty and use can so well agree together, that of all the *trinkets* wherewith they are attired, there is not one but serves to some necessary purpose. *Sidney.*

They throng who should buy first, as if my *trinkets*, had been hallowed. *Shakespeare. Winter's Tale.*

Let her but have three wrinkles in her face, Soon will you hear the saucy steward say, Pack up with all your *trinkets* and away. *Dryden's Juvenals*

Go with all your servants and *trinkets* about you. *L'Estrange.*

She was not hung about with toys and *trinkets*, tweezer-cases, pocket-glasses. *Arbuhnot.*

How Johnny wheedled, threatened, fawned, Till Phyllis all her *trinkets* pawned. *Swift.*

**TRIOBOLAR**, *adj.* Lat. *triobolaris*. Vile; mean; worthless.

Turn your libel into verse, and then it may pass current amongst the balladmongers for a *triobolar* ballad. *Cheyne.*

**TRINOMALEE**, a town and fortress of the Carnatic. During the wars of the last century this place was often taken and retaken by the contending parties. In its vicinity the British defeated, in the year 1767, the combined armies of the Nizam and Hyder Aly. It is situated on a mountain, and contains a celebrated Hindoo temple. Long. 79° 10' E., lat. 12° 16' N.

**TRIOCALA**, or **TRIOCLA**, an ancient town in the south of Sicily.—Sil. Ital. 14. v. 271.

**TRIOECIA**, in botany, the third order of plants in the class polygamia, comprehending those singular plants which have the polygamy on three distinct plants. It contains two genera, the ficus and ceratonia.

**TRIONES**, in astronomy, a sort of constellation or assemblage of seven stars in the Ursa Major, popularly called Charles's Wain. From the septem triones the north pole takes the denomination septentrio.

**TRIOPTERIS**, in botany, a genus of plants belonging to the class decandria, and the order trigynia, ranking in the natural method in the twenty-third order trihilate.

**TRIOSTEUM**, fever-root, or false ipecacuana, a genus of plants belonging to the class of pentandria and the order of monogynia, ranking in the natural method under the forty-eighth order, aggregate.

**TRIP**, *v. a., v. n., & n. s.* } Fr. *treper*; Belg  
TRIP'PING, *adj. & n. s.* } *trippen*; Span. *tre-*  
TRIP'PLY, *adv.* } *par*. To supplant; throw by striking the feet from the ground by a sudden motion; strike from under the body; catch; detect: to fall by losing foot-hold; fail; stumble; run lightly: a stroke; catch; stumble; failure; short journey: tripping, adjective, light; agile; nimble: as a noun substantive, light dance: the adverb corresponding.

Saint Jerome, who pardons not over-easily his adversaries, if any where they chance to *trip*, presseth him as thereby making all sorts of men God's enemies. *Hooker.*

Speak the speech trippingly on the tongue: but if you mouth it, as many of our players do, I had as lieve the town-crier had spoke my lines.

*Shakspeare. Hamlet.*

*He conjunct*

*Tripped me behind.*

*Shakspeare.*

*Be you contented,*

To have a son set your decrees at nought, To *trip* the course of law, and blunt the sword That guards the peace and safety of your person. *Id.*

O thou dissembling cub! what wilt thou be When time hath sowed a grizzle on thy cufe? Or wilt not else thy craft so quickly grow, That thine own *trip* shall be thine overthrow? *Id.*

He throws his arm, and with a long-drawn dash Blends all together; then distinctly *trips*



From this to that ; then quick returning skips,  
And snatches this again, and pauses there.

*Crashaw.*

The words of Hobbes's defence *trip* up the heels of his cause ; I had once resolved. To resolve presupposeth deliberation, but what deliberation can there be of that which is inevitably determined by causes without ourselves ?

*Bramhall.*

Back, shepherds, back, enough your play,  
Here be without duck or nod,  
Other *trippings* to be trod,  
Of lighter toes.

*Milton.*

On old Lycæus, or Cyllene hoar,

*Trip* no more in twilight ranks ;

Though Erymanth your loss deplore,

A better soil shall give ye thanks. *Id. Arcades.*

Virgil is so exact in every word that none can be changed but for a worse : he pretends sometimes to *trip*, but it is to make you think him in danger when most secure.

*Dryden.*

Stay, nymph, he cried, I follow not a foe ;

Thus from the lion *trips* the trembling doe. *Id.*

Well thou dost to hide from common sight

Thy close intrigues, too bad to bear the light :

Nor doubt I but the silver-footed dame

*Tripping* from sea on such an errand came. *Id.*

I may have the idea of a man's drinking till his tongue *trips*, yet not know that it is called drunkenness.

*Locke.*

Many, having used their utmost diligence to secure a retention of the things committed to the memory, cannot certainly know where it will *trip* and fail them.

*South.*

Will shines in mixed company, making his real ignorance appear a seeming one : our club has caught him *tripping*, at which times they never spare him.

*Addison's Spectator.*

It was a noble time when *trips* and Cornish hugs could make a man immortal.

*Id. on Medals.*

In Britain's isles, as Heylin notes,

The ladies *trip* in petticoats.

I took a *trip* to London on the death of the queen.

*Pope.*

Each seeming *trip*, and each digressive start,  
Displays their case the more, and deep-planned art.

*Harte.*

**TRIPARTITE**, *adj.* Fr. *tripartite* ; Lat. *tripartitus*. Divided into three parts ; having three corresponding copies ; relating to three parties.

Our indentures *tripartite* are drawn.

*Shakspeare. Henry IV.*

**TRIPE**, *n.s.* Fr. *tripe* ; Ital. and Span. *trip-pa*. The intestines ; the guts.

How say you to a fat *tripe* finely broiled ?

—I like it well.

*Shakspeare.*

In private draw your poultry, clean your *tripe*.

*King.*

**TRIPELA**, in mineralogy, a peculiar species of *Tripoli*, found by Homberg most proper for making moulds for pastes.

**TRIPETALOIDEÆ**, in botany, the fifth order of plants, in Linnæus's system of a natural method. See **BOTANY**, Index.

**TRIPLARIS**, in botany, a genus of plants belonging to the class of triandria and in the order of monogynia.

**TRIPLE**, *adj. & v. a.*

Fr. *triple* ; Lat. *triplex*, *tripulus*. Three-

**TRIPLET**, *n. s.*

**TRIPPLICATE**, *adj.*

**TRIPPLICATION**, *n. s.*

**TRIPPLICITY**.

of a kind ; three verses rhyming together : triplicate, made thrice as much : triplication, the act of

tripling : triplicity, trebleness ; state of being threefold.

To what purpose should words serve, when nature hath more to declare than groans and strong cries ; more than streams of bloody sweat ; more than his doubled and *triple*d prayers can express. *Hooker*

See in him

The *triple* pillar of the world transformed  
Into a strumpet's stool.

*Shakspeare. Antony and Cleopatra.*

It was a dangerous *triplicity* to a monarchy, to have the arms of a foreigner, the discontents of subjects, and the title of a pretender, to meet.

*Bacon's Henry VII.*

O night and shades,

How are ye joined with bell in *triple* knot.

Against the unarmed weakness of one virgin,

Alone and helpless !

*Milton.*

Since the margin of the visible horizon in the heavenly globe is parallel with that of the earthly, accounted but one hundred and twenty miles diameter ; sense must needs measure the azimuths, or vertical circles, by *triplication* of the same diameter of one hundred and twenty.

*Glanville.*

Thrice happy pair ! so near allied

In royal blood and virtue too :

Now love has you together tied,

May none this *triple* knot undo !

*Waller.*

I frequently make use of *triple*t rhymes, because they bound the sense, making the last verse of the *triple*t a pindarick.

*Dryden.*

All the parts, in height, length, and breadth, bear a duplicate or *triplicate* proportion one to another.

*Grew.*

We have taken this as a moderate measure betwixt the highest and lowest ; but, if we had taken only a *triple* proportion, it would have been sufficient.

*Burnet.*

*Triplicate* ratio, in geometry, is the ratio of cubes to each other ; which ought to be distinguished from *triple*.

*Harris.*

If these halfpence should gain admittance, in no long space of time his limited quantity would be *triple*d upon us.

*Swift.*

Out bounced the mastiff of the *triple* head ;

Away the hare with double swiftness fled. *Id.*

Affect not duplicities nor *triplicities*, nor any certain number of parts in your division of things.

*Watts's Logick.*

**TRIPMADAM**, *n. s.* An herb.

*Tripmadam* is used in salads.

*Mortimer's Husbandry.*

**TRIPOD**, *n. s.* Lat. *tripus*. A seat with three feet, such as that from which the priestess of Apollo delivered oracles.

Two *tripods* cast in antick mould,

With two great talents of the finest gold.

*Dryden's Æneid*

The **TRIPON**, in antiquity, was a famed sacred seat or stool, supported by three feet, whereon the priests and sybils were placed to render oracles. It was on the tripod that the gods were said to inspire the Pythia with that divine fury and enthusiasm wherewith she was seized at the delivery of her predictions.

M. Spanheim observes, that on Roman medals, the tripod expresses some priesthood, or sacerdotal dignity. A tripod, with a raven and a dolphin, is also the symbol of the dumviry, deputed for keeping of the sybilline oracles, and for consulting them on occasion.

TRIPOLI, the most easterly of the Barbary states on the northern coast of Africa, consists chiefly of a line of coast extending about 800 miles in length, or from Cape Razatin in  $11^{\circ} 38'$  E long. to Port Bomba in  $32^{\circ} 20'$  E. long. Its interior boundaries are, on the east the desert of Barca, on the south Fezzan, on the west Tunis and part of the Bled el Jereede, or country of dates. For a few miles inland this country is almost throughout of exuberant fertility; beyond this limit, the productive qualities of the soil entirely disappear, and the interior is occupied either with deserts of sand, or with the mountainous districts of Garian and Mesulata. The Tripolitan territory includes the country colonised by the Greeks and celebrated by them under the name of Cyrene. In the great bay, called now the Gulf of Sidra, are the quicksands so dreaded by the ancients, under the appellation of Syrtes. From this point the Greeks derived their knowledge of the African desert, and its savage inhabitants, called then the Nasamones and Lotophagi. Cyrene formed the eastern boundary of the Carthaginian dominion, and, under the last Ptolemy, surnamed Apion, was converted into a Roman province. It was early subjected to the power of the Saracens, and shared the vicissitudes of their dynasties on the Barbary coast: in the reign of Charles V. it was occupied for a short time by the knights of Malta, who, however were driven out by Sinan Bashaw, the lieutenant of Solyman, and Dragut Rais, the celebrated corsair. It continued under the dependence of the Ottoman Porte, and was governed by Turks till 1713, when Hamet Bashaw, a native of Caramania, disowned the sultan's authority, and erected Tripoli into an independent state. Of late a remarkable revolution has taken place, in consequence of the sovereign reposing his confidence in negro troops. Through their means Yussuf Pacha raised himself, through the murder of his brother, to the supreme power, which he stained with every species of crime, and gave to the administration a barbarous character, which it had not before exhibited. Yet he has studiously cultivated the alliance of Britain, and has afforded to its subjects ample opportunities of exploring the interior.

The tract along the coast produces every article peculiar to the finest tropical climates. The exportation of corn might be considerable, did not the Tripoline government follow the absurd policy of prohibiting it unless by the bashaw, merely for his own profit. The same law applies to horses and mules, the breed of which is cultivated with great care. Bullocks, sheep, and poultry, are reared in immense quantities; and, animal food being little consumed, afford a considerable object of exportation. The beef is small, but very good; the mutton inferior; but the lamb exquisite. The date tree forms the staple of the interior and sandy tracts. In the same districts is found the lotus. A considerable quantity of raw silk was formerly exported; but its cultivation has latterly been neglected. The cassob, unknown in Europe, yields in Tripoli a nutritious flour, which forms an important part of the popular diet.

The basis of the population consists of a mixed

race of Moors, Arabs, and Turks, who seldom exceed the middle size. The Moors have a fair complexion; while that of the Arabs is dark and sallow. They are all remarkable for regular and athletic forms; and a cripple or deformed person is scarcely to be seen. They chiefly inhabit the towns; or carry on cultivation in the immediate vicinity. Jews, renegadoes, and negroes, are also numerous. Some remains are still found of an extraordinary race, called by the ancients the Psylli, to whom was ascribed the power of curing the bites of serpents, and other extraordinary attributes. They are seen in the towns, rushing into the street in a state of apparent frenzy, half naked and foaming at the mouth; and revered by the natives as saints. Captain Lyon found by experience that their feats, in taking up serpents uninjured, could be imitated without much difficulty. In the mountains of Garian there is a race of Arabs, who, according to a custom there prevalent from remote antiquity, live in caves under ground. A populous mountain might be passed over by the traveller without suspecting that it contained a single inhabitant.

Along the whole coast, and in many parts of the interior, are found fine specimens of classic architecture. The spots most remarkable in this respect that have been hitherto observed are Ptolemeta (formerly Ptolemais), and still more Lebida, the Leptis Magna of the ancients. The remains of the latter are about three miles in length, and two in breadth, and consist of gateways, walls, an immense number of pillars, some of the very finest granite, and numerous inscribed marbles. Some specimens have been lately conveyed to this country.

TRIPOLI, a considerable city, capital of the foregoing territory, is built in a low situation on a neck of land projecting into the sea. It is of great extent, though, a large portion of the space enclosed within its walls being unoccupied, the population does not exceed 25,000. The caravanseras, mosques, houses of the foreign consuls, and of the higher ranks of the natives, are mostly of stone, and regularly whitewashed twice a-year. The lower kind of houses are of earth, small stones, and mortar; the height never exceeds one story; and they are built in a square form, with a court in the centre. The roofs, being flat, serve as an agreeable promenade, and as a receptacle for the rain water, which is conveyed by pipes to cisterns below. The better sort of houses are two stories high. With the exception of those belonging to the foreign consuls, they have no windows to the street. The bazars or market places, which occupy a considerable portion of the city, are kept in excellent order. There is one very elegant mosque: the public baths, of which there are only two, and the caravanseras, are also very spacious and convenient. The chief monument of antiquity is a superb triumphal arch, built of fine marble, ornamented with several bas reliefs, inscriptions, &c., and erected in the reign of Pius Antoninus. The greater part of this beautiful monument is buried in the earth, and the upper part is unfortunately mutilated. The police of the town is excellent: a number of people are also kept for the express purpose of sweeping the town. The harbour



formed by a reef of rocks, running in an eastern direction from the northern extremity of the town, affords the greatest shelter during the prevalence of a north-easterly gale, the only wind injurious to Tripoli. Though not very spacious, it is perfectly safe throughout the year, and, besides merchant vessels, will admit small frigates, not drawing above eighteen feet. Tripoli is surrounded by a high wall, flanked by six bastions, and has two gates, one on the south, and the other on the east; the batteries are mounted altogether with about fifty pieces of cannon. The castle is an irregular, extensive square pile: when viewed from the port, it has a very respectable appearance. The ramparts are high, and well supplied with brass cannon. The Americans in 1804 were unable to make any impression upon this place.

The western quarter of the town is inhabited by a great number of Moorish families, who, excluded from all offices of honor and profit, devote themselves entirely to trade. No jewels or gold dust are purchased by the prince, however, without some Jew having previously imported them. The providing of dress and other supplies for the harem is the province of Jewesses. Others apply themselves to handicraft, and particularly the manufacture of gold and silver lace.

The bashaw is nominally the subject of the Porte, from which, at the entrance of his reign, he must receive confirmation; but the authority of that power is in fact so little regarded that he does not hesitate to carry on a system of piracy against its vessels. The principal officers of state are the bey or generalissimo, which place is now filled by the bashaw's eldest son; the aga, who commands the Turkish troops, reduced at present to a very small number; the kaya, or grand judge; the kadi, or religious judge; the kaid, or governors of the provinces; the first admiral and vice-admiral, the former of whom, now named Murat Rais, was originally a Scotsman of the name of Peter Lysle. The jealousy of the sovereign leads him to confer the offices of state almost exclusively upon foreigners and renegadoes, on whom, too, he usually bestows his daughters.

The trade of Tripoli is chiefly carried on with Malta, Tunis, and the Levant. The vessels employed in it are mostly Maltese and Ottoman. The exports are wool of excellent quality; senna, and several other drugs, madder roots, barilla, hides, goat and sheep skins dressed, salt, sal natron, ostrich feathers, gold dust, ivory, gum, dried fruit and dates, lotus berries, cassob, saffron, bullocks, sheep, and poultry. The imports are cloths of every quality and color, sugar, tea, coffee, spices of all sorts, woollen and Manchester stuffs, damasks, silks of various colors and descriptions, gold and silver tissues, laces and threads, cochineal, indigo, iron, hardware of all kinds, small wines, spirits, capillaire, gunpowder, cannon, muskets, pistols, sword blades, naval stores of every description, planks and beams for building ships and houses; common looking-glasses, toys, cotton threads, and Tunisian caps. Tripoli is also the centre of a considerable portion of that caravan trade which is character-

istic of Africa. Long. 13° 18' E., lat. 32° 54' N.

TRIPOLI, a sea-port of Syria, capital of a pachalic of the same name, is situated at the foot of Mount Lebanon, and along the edge of a small triangular plain, which extends between it and the sea, terminating in a flat promontory, on which is situated the place of anchorage. Here is a small town called La Marina, at which the vessels unlade their cargoes, and which forms the port of Tripoli. There is properly no harbour, but a mere road, defended against the action of the sea by lines of small islands, or rather shoals, called the Rabbit and Pigeon Islands. The anchorage is by no means safe or convenient, and south and south-east winds are sometimes tempestuous and dangerous. Along the sea are the remains of six or seven square towers, by which it was formerly defended. The town itself is about three-quarters of a mile long, by 300 yards broad: it is traversed by the small river Kadisha. The only fortification consists of the citadel, situated at the south side of the town, on the banks of the Kadisha. It is an old Saracen building, in a wretched state, and now wholly useless. The plain is entirely covered with trees, chiefly mulberry, planted in regular order, and serving for the production of silk. Between July and September, epidemic fevers constantly rage here; and health itself resembles a state of convalescence. Tripoli enjoyed a considerable trade previous to the late war, which seriously injured it. Silk is largely exported, both raw, and in the form of handkerchiefs manufactured in the place. Soap is also made for exportation. The pachalic contains a great part of the ancient Phœnicia, and consists of the declivity of Lebanon, with the plain interposed between it and the Mediterranean. It is in general well watered, and covered with rich verdure, exhibiting extensive groves of mulberry, orange, lemon, and other fruit trees. The mountainous districts, inhabited by the independent tribes of the Maronites and Ansarians, are better cultivated than the plains. For some time past, this pachalic has been generally included either under that of Acre, or that of Damascus. Long. 35° 44' E., lat. 34° 26' N.

TRIPOLI, in mineralogy. Color yellowish-gray. Massive. Fracture fine or coarse earthy. Opaque. Soft. Rather easily frangible. Meagre. Does not adhere to the tongue. Specific gravity 2.2. Infusible. Its constituents are, silica 81, alumina 1.5, oxide of iron 8, sulphuric acid 3.45, water 4.55.—Bucholz. Of the rottenstone, silica 4, alumina 86, carbon 10.—Phillips. It occurs in beds in coal-fields, with secondary limestone, and under basalt. It is found at Bakewell, in Derbyshire, where it is called rottenstone. It is used for polishing stones, metals, and glasses. The tripoli of Corfu is reckoned the most valuable.

TRIPOLIZZA, a town of Greece, in the Morea, in a narrow valley, at the foot of Mount Menalus, twenty-two miles S. S. W. of Argos, and thirty N. N. W. of the ruins of Sparta. It is said to have been built of the remains of several towns, Megalopolis, Tegea, Mantinea, and Pallantium, without, however, occupying the site of any of these places, which were at a considerable distance from each other. See GREECE.

**TRIPOLY**, *n. s.* From *tripoli*. A sharp cutting sand.

In polishing glass with putty, or *tripoly*, it is not to be imagined that those substances can by grating and fretting the glass bring all its least particles to an accurate polish.

*Newton.*

**TRIPOS**, *n. s.* A tripod. See **TRIPOD**.

Welcome all that lead or follow,

To the oracle of Apollo;

Here he speaks out of his pottle,

Or the *tripos*, his tower bottle. *Ben Jonson.*

Crazed fool, who wouldst be thought an oracle,

Come down from off the *tripos*, and speak plain.

*Dryden.*

**TRIPSACUM**, in botany, a genus of plants belonging to the class monœcia and order of triandria; and ranking, according to the natural system, in the fourth order, gramina.

**TRIPTOTE**, *n. s.* Lat. *triptoton*.

*Triptote* is a noun used but in three cases.

*Clarke.*

**TRIPU'DIARY**, *adj.* Lat. *tripudium*. Performed by dancing.

Claudius Pulchur underwent the like success when he continued the *tripudary* augurations.

*Browne's Vulgar Errors.*

**TRIQUETROUS**, among botanists, expresses a fruit or leaf that has three sides or faces all flat.

**TRISECTION** is a term chiefly used in geometry for the division of an angle into three equal parts. The trisection of an angle, geometrically, is one of those great problems whose solution has been so much sought for by mathematicians for 2000 years past; being, in this respect, on a footing with the famous quadrature of the circle and the duplicature of the cube.

**TRISSINO** (John George), an Italian poet born at Vicenza in 1478. His tragedy of *Sophonisba* was acted at Rome by order of pope Leo, and received great applause. His chief work is a poem on Italy Delivered from the Goths. He died in 1550. His works were printed at Verona in 2 vols. folio, 1729.

**TRISTAN D'ACUNHA**, the largest of three islands in the South Atlantic Ocean, about 1500 miles from any land either to the west or north, very lofty, and about fifteen miles in circumference. It has been described by sir Erasmus Gower, and the author of the *Authentic Account of the Embassy of China*, as rising perpendicularly from the sea towards the north to a height apparently of 1000 feet or more. A level then commences, forming what among seamen is termed table land, and extending towards the centre of the island; whence a conical mountain rises, not unlike in appearance to the Peak of Teneriffe, as seen from the bay of Santa Cruz. When circumstances require particular despatch, it is practicable to come from England to Tristan d'Acunha without stopping in the way, and afterwards to the end of the voyage to India or China. These islands are situated in that part of the southern hemisphere in the neighbourhood of which, a continent, to balance the quantity of land in the northern hemisphere, was once expected to be found; but where it has since been discovered that there is none. The spot where the *Lion* anchored was determined by good

meridional observations, and by accurate time-pieces, to be in long. 15° 40' W., lat. 37° S.

**TRISTFUL**, *adj.* Lat. *tristis*. Sad; melancholy; gloomy; sorrowful. A bad word.

Heaven's face doth glow

With *tristful* visage: and, as 'gainst the doom,

Is thoughtsick at the act. *Shakspeare. Hamlet.*

**TRISULC**, *n. s.* Lat. *trisulcus*. A thing of three points.

Consider the threefold effect of Jupiter's *trisulc*, to burn, discuss, and terebrate.

*Browne's Vulgar Errors.*

**TRITE**, *adj.* Lat. *tritus*. Worn out; stale; common; not new.

'These duties cannot but appear of infinite concern when we reflect how uncertain our time is; this may be thought so *trite* and obvious a reflection, that none can want to be reminded of it.

*Rogers's Sermons.*

She gives her tongue no moment's rest,

In phrases battered, stale, and *trite*,

Which modern ladies call polite.

*Swift*

**TRITICUM**, wheat, in botany, a genus of plants belonging to the class of triandria and order of digynia, and in the natural system ranging under the fourth order, gramina. The calyx is bivalve, solitary, and generally containing three florets; the corolla is bivalve, one valve being bluntish, the other acute. There are fourteen species. For the cultivation of wheat see **RURAL ECONOMY**. Linneus comprehends the different kinds of wheat cultivated at present under six species; viz. *æstivum*, *hybernium*, *turgidum*, *colonicum*, *spelta*, and *monococcum*. Other botanists, however, add eight species to those of Linneus, and thus enumerate fourteen species in all, beside varieties, which the improvements of cultivation have increased very much.

**TRITON**, in the mythology, a sea-god, the son of Neptune and Amphitrite. He could calm the ocean in the greatest storms. He is represented as blowing a shell, his body above the waste like that of a man, but below a dolphin. He was Neptune's trumpeter and messenger.

**TRITON**, in zoology, a genus belonging to the order of *vermes mollusca*. The body is oblong; the tongue is spiral; it has tentacula, six on each side, the hindmost ones having claws like a crab. There is but one species, found in holes of rocks about the shore.

**TRITONE**, in music; an imperfect concord; an interval of three tones. See **MUSIC**.

**TRITONES**, a numerous tribe of inferior sea deities who dragged Neptune's chariot. They were half men, half fishes.

**TRITONIS**, a lake of Africa.—Paus. 9. c. 33.

**TRITONON**, a town of Doris.—Liv. 28. c. 7.

**TRITURABLE**, *adj.* Fr. *triturable*. Possible to be pounded or comminuted.

It is not only *triturable* and reducible to powder by contrition, but will not subsist in a violent fire.

*Browne.*

He affirmeth that a pumice stone powdered is lighter than one entire; that abatement can hardly be avoided in *trituration*. *Id. Vulgar Errors.*

**TRIVENTUM**, an ancient town of Italy belonging to the Samnites, now called Trivento.

**TRIVET**, *n. s.* See **TRIVET**. Any thing supported by three feet.



The best at horse-race he ordained a lady for his prize,  
Generally praiseful; fair and young, and skilled in housewiferies  
Of all kind fitting; and withal a *trivet*, that enclosed

Twenty-two measures. *Chapman's Iliad.*

The *trivet* table of a foot was lame;  
A blot which prudent Baucis overcame,  
Who thrusts beneath the limping leg a sherd.

*Dryden.*

TRIVIA, a surname of Diana, as she presided over all places where three roads met.—*Virg.*

TRIVLE ANTRUM, a place in Aricia where the goddess Egeria met with Numa.

TRIVIAL, *adj.* } *Fr. trivial*; *Lat. trivia-*  
TRIV'IALLY, *adv.* } *lis.* Light; trifling; vul-  
TRIV'IALNESS, *n.s.* } gar; worthless; vile: the  
adverb and noun substantive corresponding.

This argues conscience in your grace,  
But the respects thereof are nice and *trivial*.  
All circumstances well considered.

*Shakspeare. Richard III.*

Money is not the sinews of war, as is *trivially* said, where the sinews of men's arms, in effeminate people, fail.

*Bacon.*

Be subjects great, and worth a poet's voice,  
For men of sense despise a *trivial* choice.

*Roscommon.*

This way of measuring felicities was so natural to him that it would occur even in the most *trivial* instances.

*Fell.*

See, yon mad fools, who, for some *trivial* right,  
For love, or for mistaken honour, fight.

*Dryden.*

Were they only some slight and *trivial* indiscretions, to which the example of the world exposed us it might perhaps not much concern our religion.

*Rogers.*

In every work regard the writer's end;  
And if the means be just, the conduct true,  
Applause, in spite of *trivial* faults, is due.

*Pope.*

TRIVIAL NAME, in botany, zoology, &c., is that by which the species of a plant or animal is distinguished from every other species.

TRIVICARY, an ancient city of the south of India, province of the Carnatic, but of which very little remains. Hyder Aly gave the finishing blow to its destruction in the year 1781. It is now only remarkable for the petrifications in its neighbourhood. One of these is described as of a tree sixty feet in length: the pieces of this, when polished, resemble agate, and will strike fire like a flint. It is supposed to have been a tamarind, which is one of the hardest woods known by mechanics. The ruins are situated on the north side of the Villenoor River. Long. 79° 43' E., lat. 12° 3' N.

TRIUMFETTA, in botany, a genus of plants in the class didecandria and order of monogynia, and in the natural method ranking in the thirty-seventh order, columbinæ.

TRIUMPH, *n.s.* & *v.n.* } *Fr. triomphe*;  
TRIUM'PHAL, *adj.* & *n.s.* } *Latin triumphus.*  
TRIUM'PHANT, *adj.* } *Pomp with which*  
TRIUM'PHANTLY, *adv.* } *a victory is pub-*  
TRIUM'PHER, *n.s.* } *licly celebrated;*  
victory; conquest: to celebrate a victory: hence to obtain one; glory over: the derivatives all correspond.

The *triumphing* of the wicked is short, and the joy of the hypocrite is but for a moment. *Job xx. 5.*

This great commander sought many times to persuade Solyman to forbear to use his forces any farther against the Christians, over whom he had sufficiently triumphed, and turn them upon the Persians.

*Knolles's History of the Turks.*

Hence will I drag thee headlong by the heels  
Unto a dunghill, which shall be thy grave,  
And there cut off thy most ungracious head,  
Which I will bear in triumph to the king.

*Shakspeare.*

How ill beseeeming is it in thy sex  
To triumph like an Amazonian trull!  
Captives bound to a triumphant car.

*Id.*

These words become your lips, as they pass through them,

And enter in our ears, like great triumphers  
In their applauding gates.

*Id. Timon of Athens.*

In ancient times the triumphs of the generals from victory, and the great donatives upon disbanding the armies, were things able to enflame all men's courage.

*Bacon.*

He left only triumphal garments to the general.

*Id.*

August was dedicated to Augustus by the senate, because in the same month he was the first time created consul, and thrice triumpher in Rome.

*Peacham on Drawing.*

Great triumph and rejoicing was in heaven.

*Milton.*

Our grand foe,

Who now triumphs, and in the excess of joy  
Sole reigning holds the tyranny of heaven.

*Id.*

Ye so near heaven's door,

Triumphal with triumphal act hath met.

*Id.*

He to his crew, that sat consulting, brought

Joyless triumphals of his hoped success.

*Id.*

Your victory, alas! begets my fears;

Can you not then triumph without my tears?

*Dryden.*

It was drawn as a triumphant chariot, which at the same time both follows and triumphs.

*South's Sermons.*

There fix thy faith, and triumph o'er the world;  
For who can help, or who can save besides?

*Rowe.*

Steel could the works of mortal pride confound,  
And hew triumphal arches to the ground.

*Pope.*

Least we should for honour take

The drunken quarrel of a rake;

Or think it seated in a scar,

Or on a proud triumphal car.

*Swift.*

If fools admire, or whining coxcombs toast,

The vain coquets the trifling triumphs boast.

*Logie.*

A TRIUMPH, in Roman antiquity, was a public and solemn honor conferred by the Romans on a victorious general by allowing him a magnificent procession through the city.

TRIUMPH, THE GREATER, called also curulis, or simply the triumph, was decreed by the senate to a general upon the conquering of a province or gaining a signal victory. The general was clad in a rich purple robe, interwoven with figures of gold, setting forth his great exploits; his buskins were beset with pearl; and he wore a crown, which at first was only laurel but afterwards gold; in one hand he bore a branch of laurel, and in the other a truncheon. He was carried in a magnificent chariot, adorned with ivory and plates of gold, usually drawn by two white horses, though sometimes by other animals, as that of Pompey, when he triumphed over Africa, by elephants; that of Marc Antony by lions; that of Heliogabalus by tigers; that of Aurelianus by deer, &c. His children were at his feet, and

sometimes on the chariot horses. At the victor's back walked a slave, who railed on him, and reproached him with all his crimes and vices with impunity. The procession was led up by the musicians, who played triumphal pieces in praise of the general; these were followed by young men, who led the victims to the sacrifice, with their horns gilded and their heads adorned with ribands and garlands; next came the carts and waggons loaded with all the spoils taken from the enemy, with their horses, chariots, &c.; these were followed by the kings, princes, and generals, who had been taken captives, loaded with chains; after these appeared the triumphal chariot, before which, as it passed, they all along strewed flowers, and the people with loud acclamations called out *Io triumph!* The chariot was followed by the senate, by such citizens as had been set at liberty or ransomed; and the procession was closed by the priests and their officers and utensils with a white ox led along for the chief victim. In this order they proceeded through the triumphal gate, along the *Via Sacra*, to the capitol, where the victims were slain. In the mean time all the temples were open, and all the altars loaded with offerings and incense; games and combats were celebrated in the public places, and rejoicings appeared every where.

**TRIUMVIR**, one of three persons who govern absolutely and with equal authority in a state. It is chiefly applied to the Roman government: Cæsar, Pompey, and Crassus, were the first triumvirs who divided the government among them. There were also other officers so called; as the *triumviri*, or *tresviri capitales*, who were the keepers of the public gaol; they punished malefactors, for which purpose they kept eight lictors under them.

**TRIUMVIRATE**, *n. s.* } *Lat. triumviratus,*  
**TRIUMVIRI.** } or *triumviri.* A  
coalition or concurrence of three men.

Lepidus of the *triumvirate*  
Should be deposed.

*Shakspeare. Antony and Cleopatra.*

The *triumviri*, the three corner cap of society.

*Shakspeare.*

During that *triumvirate* of kings, Henry the Eighth of England, Francis the First of France, and Charles the Fifth, emperor of Germany, none of the three could win a palm of ground but the other two would balance it.

*Bacon's Essays.*

With these the Piercies them confederate,  
And, as three heads, conjoin in one intent,

And, instituting a *triumvirate*,

Do part the land in triple government.

*Daniel's Civil War.*

From distant regions fortune sends

An odd *triumvirate* of friends. *Swift.*

**TRIUMVIRORUM INSULA** (the island of the triumvirs), an island in the Rhine at its junction with the Po, where the triumvirs Antony, Octavius, and Lepidus, met to divide the Roman empire after the death of Cæsar.—Dion. 46. c. 55.

**TRIUNE**, *adj.* *Lat. tres* and *unus.* At once three and one.

We read in scripture of a *triune* deity, of God made flesh in the womb of a virgin, and crucified by the Jews.

*Burnet.*

**TRO'CAR**, *n. s.* *Fr. trocar*, corrupted from *trois quart.* A chirurgical instrument

The handle of the *trocar* is of wood, the canula of silver, and the perforator of steel. *Sharp's Surgery.*

**TROCHE**, in pharmacy, a sort of medicine made of glutinous substances into little cakes and afterwards exsiccated. See **PHARMACY**, Index.

**TROCHEE** (*Lat. trochæus*, *Fr. trochée*, *Gr. τροχαιος*), a foot used in Latin poetry consisting of a long and short syllable.

**TROCHILICKS**, *n. s.* *Gr. τροχίλιον, τροχος*, a wheel. The science of rotatory motion.

It is requisite that we rightly understand some principles in *trochilicks*, or the art of wheel instruments; as chiefly, the relation betwixt the parts of a wheel, and those of a balance, the several proportions in the semidiameter of a wheel being answerable to the sides of a balance. *Wilkins's Dæd.*

There succeeded new inventions and horologies, composed by *trochilicks*, or the artifice of wheels, whereof some are kept in motion by weight, others without. *Browne.*

**TROCHILUS**, the humming bird, a genus of birds belonging to the order of *picæ*. The rostrum is subulate, filiform, and longer than the head, the apex being tubular; the upper mandible sheaths the lower. The tongue is filiform and tubulous, the two threads coalescing; the feet are slender and fit for walking; the tail has ten feathers. There are sixty-five species, none of which are natives of Britain. They are all remarkable for the beauty of their colors, and most of them for the smallness of their size, though some are eight or nine inches long. They are divided into two families, viz. those with crooked bills, and those with straight bills.

**TROCHISCH**, *n. s.* *Fr. trochisque*; Latin *trochiscus*; *Gr. τροχισκος*. A kind of tablet or lozenge.

The *trochisks* of vipers, so much magnified, and the flesh of snakes some ways condited and corrected.

*Bacon.*

**TROGLODYTE**, *n. s.* *Gr. τρογλοδυτης*. One who inhabits caves of the earth.

Procure me a *troglydote* footman, who can catch a roc at his full speed.

*Arbutnot and Pope.*

The **TROGLODYTES**, or **TROGLODYTÆ**, were an ancient people of Ethiopia, said to have lived in caves under ground. Their country was called *Troglydtria*.

**TROGLODYTES**, in zoology. See **SIMIA**.

**TROGUS POMPEIUS**, a Latin universal nistorian to the time of Augustus Cæsar, of whom we have an abridgment by Justin, flourished about 41 B. C.

**TROJA**, the capital city of Troas, but some consider it to be a country of which Ilium was the capital. It was built on a small eminence near mount Ida. Dardanus the first king of the country built it and called it Dardania, and from Tros, his grandson, it was called Troja, and from Ilus, Ilium. It is supposed to have stood on the site of the modern village Bounarbachi, about twelve miles from the sea, on an eminence, at the termination of a spacious plain.

**TROJANI LUDI**, games instituted by Æneas in honor of Anchises, celebrated at Rome.

**TROJANS**, the people of Troy.



**TROILUS**, a son of Priam and Hecuba, killed by Achilles during the Trojan war.

**TROITSK**, a town of Asiatic Russia, in the government of Orenbourg, surrounded with wooden fortifications, forming a square, flanked with towers, and encompassed by a ditch and glacis. The place is an emporium for the trade with the Asiatic tribes, particularly the Kirghises of the Lesser Horde, who are particularly rich in cattle, and is carried on in the exchange, a large square, built on the opposite side of the Oui or Ouk, which passes by the city. Long. 55° 30' E., lat. 54° 15' N.

**TROITSK**, a town of Asiatic Russia, about ninety miles to the west of the former. The inhabitants, amounting to upwards of 3000, are entirely employed in cultivation.

**TROLL**, *v. a. & v. n.* Fr. *troller*; Belg. *trollen*, to roll. To move circularly; drive about: roll; turn round.

With the phant'ies of hey troll,  
Troll about the bridal bowl,  
And divide the broad-bread cake,  
Round about the bride's stake.

*Ben Jonson's Underwood.*

Nor drain I ponds the golden carp to take,  
Nor trole for pikes, dispeoplers of the lake. *Gay.*  
How pleasant, on the banks of Styx,  
To troll it in a coach and six! *Swift.*

**TROLLIUS**, globe ranunculus, or lucken gowan, in botany, a genus of plants belonging to the class of polyandria and order of polygamia, and in the natural system ranging under the twenty-sixth order, multisiliquæ. The calyx is wanting; there are about fourteen petals; the capsules are very numerous, ovate, and monospermous. There are two species; viz. 1. T. Asiaticus. 2. T. Europæus, or European globe ranunculus, a British plant.

**TROMMIUS** (Abraham), a Protestant divine, born at Groningen in 1633. He published a Greek Concordance of the Old Testament in 2 vols. folio, 1718. He died in 1719.

**TROMP** (Martin Happeritz Van), a celebrated Dutch admiral, born at the Beil in Holland. He raised himself by his merit after having distinguished himself on many occasions, especially at the famous engagement near Gibraltar in 1607. He was declared admiral of Holland, and defeated a large Spanish fleet in 1630, and gained thirty-two other victories at sea, but was killed when under deck in an engagement with the English in 1653.

**TRONA**, in natural history, the name given in Africa to the native carbonate of soda, found at Sukena, near Fezzan.

**TRONAGE**, an ancient customary duty or toll for weighing of wool. According to Fleta trona is a beam to weigh with, mentioned in the stat. Westm. 2, cap. 25. And tronage was used for the weighing wool in a staple or public mart by a common trona or beam, which, for the tronage of wool in London, was fixed at Leaden Hall. The mayor and commonalty of London are ordained keepers of the beams and weights for weighing merchants' commodities, with power to assign clerks and porters, &c., of the great beam and balance; which weighing of goods and wares is called tronage; and no stranger shall

buy any goods in London before they are weighed at the king's beam on pain of forfeiture.

**TRONCHIN** (Theodore), M. D., born at Geneva in 1709; and educated at Cambridge and Leyden, under Boerhaave. He settled at Amsterdam, next at Geneva, finally at Paris, where he died in 1781. He wrote in the Encyclopædie, and two treatises de Nympha, and De Colica Pictorum.

**TROOP**, *n. s. & v.* French *troupe*; Italian *troop'er*. [*v. n.* *troppa*; Belgic *troope*; Swed. *trop*; low Latin *troppa*. A company; a number of people collected together; body of soldiers: to march in a body; in company; or, perhaps, in haste: a trooper is a horse soldier.

Saw you not a blessed troop  
Invite me to a banquet, whose bright faces  
Cast thousand beams upon me like the sun?

*Shakespeare.*

I do not, as an enemy to peace,  
Troop in their throngs of military men,  
But rather shew awhile like fearful war. *Id.*

Yonder shines Aurora's harbinger,  
At whose approach ghosts, wandering here and there,

Troop home to churchyards. *Id.*

The dry streets flowed with men,  
That trooped up to the king's capacious court.

*Chapman.*

They anon  
With hundreds, and with thousands trooping came  
Attended. *Milton's Paradise Lost.*

Armies at the call of trumpet  
Troop to their standard. *Id.*

Æneas seeks his absent foe,  
And sends his slaughtered troops to shades below. *Dryden.*

As the mind, by putting together the repeated ideas of unity, makes the collective mode of any number, as a score or a gross; so by putting together several particular substances, it makes collective ideas of substances, as a troop, an army. *Locke.*

Custom makes us think well of any thing: what can be more indecent than for any to wear boots but troopers and travellers? yet not many years since it was all the fashion. *Greuv.*

**TROOP**, in cavalry, a certain number of men on horseback who form a component part of a squadron. It is the same, with respect to formation, as company in the infantry. When a troop dismounts, and acts on foot, it is still called a troop.

**Troop**, a certain beat of the drum. See **DRUM**.

**TROOPS, HEAVY**, Fr. *troupes d'ordonnance*, horse soldiers heavily armed and accounted for the purpose of acting together in line, &c. The Life Guards come under this description.

**TROOPS, LIGHT**, Fr. *troupes légères*, hussars, light horse, mounted riflemen, and light infantry, are so called, in opposition to cavalry or heavy horse, grenadiers and battalion men. Skirmishing is solely the business of light horse, who, according to count Turpin, should be constantly exposed as the forlorn hope of the army, or as troops whose duty it is to be continually watchful for its repose and security.

When the light horse compose an advanced camp, the men should keep their horses constantly saddled; it being only an indulgence to allow those off duty to have their horses un-

saddled. It is very true that a camp of cavalry cannot be managed after the same manner; but then cavalry is seldom so situated as to be attacked, or to attack every day, which is the real business of light horse. They should serve as vedets to the whole army, in order to prevent the enemy from approaching it; whereas cavalry should never be employed but in the greatest operations, and on occasions which are to decide the fate of a campaign. Light troops, according to the same writer, are employed to gain intelligence concerning the enemy, to learn whether he hath decamped, whether he hath built any bridges, and other things of the same nature, of which the general must necessarily be informed, and should have a day fixed for this return. There are other detachments, which should be sent out under intelligent officers, and which should never lose sight of the enemy, in order to send in daily intelligence, to attack small convoys and baggage, to pick up marauders, and harass the advanced guards. There should not be any time fixed for the return of these detachments, neither should they be confined to particular places; they should, however, return to the camp at the expiration of eight or ten days at farthest. The inconvenience arising from confining these detachments to a particular time would perhaps be, that the very day appointed for their return would be that on which they might have the fairest opportunity of learning intelligence of the enemy; consequently their being forced to return would defeat the objects for which they were sent out. See page 122, vol. ii., of Count Turpin's Art of War. In addition to this valuable work major James recommends the perusal of the following, which treat more or less of light troops:—Baron Gross's Duty of Officers in the Field; Duty of officers commanding Detachments, by Lieutenant-Colonel John Ormsby Vandeleur; and a small Treatise on the Duty of Hussars, translated by Mr. Rose, junior. Likewise a very well written treatise entitled Instructions concernant le Service de l'Infanterie légère en Campagne; also Guide de l'Officier en Campagne. The former production is by the Royal Military College at Sandhurst.

Light troops are sometimes called irregulars, as they almost constantly act in detached and loose bodies. The tirailleurs, tyroliens, yagers, sharpshooters, the chasseurs à cheval et à pied, and voltigeurs, to which the French owed much during the whole course of their stupendous revolution, are of this description. General Money observes, in page 8 of a small pamphlet addressed to the late Secretary at War, 'that what was called in this country advancing en masse, by the French, was nothing more than very large bodies of irregulars (or light troops), which covered the country, in the front of their armies, like an inundation. To their irregulars, and to their light artillery, are the French indebted for most of the victories they have gained.' He adds, 'that the troops styled in France chasseurs, are, more or less, to be met with in every service in Europe, except the British. The Austrians have many regiments of them; the Prussians have them attached, in a certain proportion, to each corps; but the French, seeing the good ef-

fect of these irregulars, have brought them more into the field than all the combined powers together. These troops are peculiarly useful in enclosed countries, and must, of course, be highly essential in Great Britain. Upon this principle four regiments of lancers have been recently formed.

TROPEA, an ancient town of the Brutii, in Italy.

TROPEOLUM, in botany, Indian cress, a genus of plants, in the class of octandria, and order of monogynia; ranking, according to the natural method, in the twenty-third order, trihilate.

TROPE, *n. s.* } French *trope*; Lat. *tropus*;  
TROPI'CAL, *adj.* } Gr. τροπος. A change of a word from its original signification; as the clouds foretel rain, for foreshow: the adjective corresponds.

For rhetoric he could not ope  
His mouth, but out there flew a trope. *Hudibras.*

A strict and literal acceptance of a loose and tropical expression was a second ground.

*Brown's Vulgar Errors.*

If this licence be included in a single word, it admits of tropes; if in a sentence of figures. *Dryden.*

The words are tropical or figurative, and import an hyperbole, which is a way of expressing things beyond what really and naturally they are in themselves. *South.*

The foundation of all parables is some analogy or similitude between the tropical or illusive part of the parable, and the thing intended by it.

*Id. Sermons.*

TROPE. See FIGURE, and ORATORY.

TROPHIS, in botany, a genus of plants, in the class diœcia, and order of tetrandria; and in the natural method ranking in the sixteenth order, calcifloræ. This genus, as well as the other genera of the class diœcia, affords the most decisive evidence of the truth of the sexual system, by bearing their male and female flowers on distinct plants.

TROPHONIUS, in fabulous history, a celebrated architect, the son of Erginus, king of Orchomenos, in Boeotia. He built the temple of Apollo at Delphi, with the assistance of his brother Agamedes; and, when he demanded a reward for his labor from the god, he was told by the priestess to wait eight days, and to spend that interval in cheerfulness and pleasure. But at the end of this period, Trophonius and his brother were found dead in bed.—Lemp.

TROPHONIUS'S CAVE, or ORACLE, a cave near Libadia, in Boeotia, between Helican and Chironæa (Strabo); so called from Trophonius, an enthusiastic diviner; who, descending into this cave, pretended to give answers and pronounce oracles; and was hence called Jupiter Trophonius. This cave was seated on a mountain above a grove, was formed by art, and surrounded with a wall. The descent was by a moveable ladder. A swarm of bees are said to have first led to it. Such as went down to this cave were said never after to smile. See ORACLE, and MYSTERIES.

TROPHY, *n. s.* } Latin *tropæum, trophæum*  
TROPHIE, *adj.* } Something shown or treasured up in proof of victory adorned with trophies.



What *trophy* then shall I most fit devise,  
In which I may record the memory  
Of my love's conquest, peerless beauty's prize  
Adorned with honour, love, and chastity? *Spenser.*

To have borne  
His bruised helmet and his bended sword  
Before him through the city, he forbids;  
Giving all *trophy*, signal, and ostent,  
Quite from himself to God. *Shakespeare. Henry V.*

In ancient times, the *trophies* erected upon the  
place of the victory, the triumphs of the generals  
upon their return, the great donatives upon the dis-  
banding of the armies, were things able to inflame all  
men's courage. *Bacon's Essays.*

Around the posts hung helmets, darts, and spears,  
And captive chariots, axes, shields, and bars,  
And broken beaks of ships, the *trophies* of their wars.  
*Dryden.*

Some greedy minion, or imperious wife,  
The *trophy'd* arches, story'd halls invade,  
And haunt their slumbers in the pompous shade.  
*Pope.*

Set up each senseless wretch for nature's boast,  
On whom praise shines, as *trophies* on a post. *Young.*

TROPIC, *n. s.* } *Fr. tropique*; *Lat. tro-*  
TROPICAL, *adj.* } *picus*. The line at which  
the sun turns back, of which the north has the  
tropic of Cancer, and the south the tropic of  
Capricorn: belonging to the tropics.

Under the *tropick* is our language spoke,  
And part of Flanders hath received our yoke.  
*Waller.*

Since on every sea, on ev'ry coast,  
Your men have been distressed, your navy tost,  
Seven times the sun has either *tropic* viewed,  
The winter banished, and the spring renewed.  
*Dryden.*

The pine apple is one of the *tropical* fruits.  
*Salmon.*

TROPOLOGY, *n. s.* *Gr. τρόπος* and *λόγος*. A  
rhetorical mode of speech including tropes, or a  
change of some word from the original meaning.

Not attaining the deuterology and second intention  
of words, they omit their superconsequences, co-  
herences, figures, or *tropologies*, and are not persuaded  
beyond their literalities. *Broune's Vulgar Errors.*

TROSSERS, *n. s.* *Fr. trousse*. Breeches; hose.  
See TROUSE.

You rode like a kern of Ireland; your French hose  
off, and in your strait *trossers*. *Shakespeare. Henry V.*

TROPPAU, or OPPAU, the capital of Austrian  
Silesia, once the residence of a regency, and still  
the seat of a high court of justice. It stands at  
the confluence of the Oppa and Mohe, surrounded  
with a wall, and has two public squares. It  
contains the ancient palace of the princes, three  
churches, several convents, a college, and a mu-  
seum. Population 10,000, who manufacture  
soap and woollens. There was a great fire here  
in 1758. Eighty-seven miles south-east of  
Breslau.

TROPPAU, a fertile principality of Silesia,  
bounded on the north by Oppeln, on the east by  
Ratibor and Teschen, and on the south and west  
by Moravia, was erected into a principality in  
1254. At the peace of Berlin, in 1742, the part  
to the north of the Oppa was ceded to Prussia;  
the remainder is subject to Austria, and belongs  
in property to prince Lichtenstein.

TROS, in fabulous history, the fifth king of  
Troy, the son of Erichthonius, and grandson of  
Dardanus, and from whom it was named Troja.

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He married Callirrhoe, the daughter of Scaman-  
der, by whom he had Ilus, Assaracus, and Gany-  
medes. See GANYMEDES.

TROSSULUM, an ancient town of Etruria,  
which was taken by a body of Roman knights,  
without the assistance of the soldiers, and who  
were hence called Trossuli.—*Plin. 32. 2. Sen.*  
*ep. 86, 87.*

TROT, *v. n. & n. s.* *Fr. trotter*; *Belg. trothen*.  
To move with a high jolting pace; walk fast:  
the pace in question; an old woman, in con-  
tempt.

Poor Tom, that hath made him proud of heart, to  
ride on a bay *trotting* horse, over four-inched bridges,  
to course his own shadow for a traitor.

*Shakespeare. King Lear.*

Whom doth time *trot* withal?

—He *trots* hard with a young maid, between the  
contract of her marriage and the day it is solemnized:  
if the interim be but a sevennight, time's pace is so  
hard that it seems the length of seven years.

*Id. As You Like It.*

Give him gold enough, and marry him to an old  
*trot* with ne'er a tooth in her head: why, nothing  
comes amiss, so money comes withal.

*Id. Taming of the Shrew.*

His honesty is not

So loose or easy, that a ruffling wind  
Can blow away, or glittering look it blind:

Who rides his sure and even *trot*,

While the world now rides by, now lags behind.  
*Herbert.*

Here lieth one who did most truly prove  
That he could never die while he could move;  
So hung his destiny, never to rot  
While he might still jog on and keep his *trot*.

*Milton.*

The virtuoso's saddle will amble when the world  
is upon the hardest *trot*. *Dryden.*

How now, bold-face! cries an old *trot*; sirrah, we  
eat our own hens, and what you eat you steal.

*L'Estrange.*

Take a gentle *trotting* horse, and come up and see  
your old friends. *Dennis.*

TROTH, *n. s.* } *Sax. tpeoð*. Belief; faith;  
TROTH'LESS, *adj.* } fidelity; truth: trothless is  
TROTH'PLIGHT, } faithless: troth plight, be-  
trothed; affianced.

Saint Withold met the night-mare,  
Bid her light and her *troth* plight. *Shakespeare.*

This, your son in law,

Is *trothplight* to your daughter. *Id. Winter's Tale.*

Thrall to the faithless waves and *trothless* sky.  
*Fairfax.*

Stephen assails the realm, obtains the crown,  
Such tumults raising as torment them both:  
The afflicted state, divided in their *troth*

And partial faith, most miserable grown,  
Endures the while. *Daniel's Civil War.*

In *troth*, thou 'rt able to instruct grey hairs,  
And teach the wily African deceit. *Addison's Cato.*

TROTTER (Mrs. Catharine), an accomplished  
and celebrated writer, was the daughter of cap-  
tain Trotter, a native of Scotland, and an officer  
in the navy of Charles II. She was born at  
London in 1679. In her seventeenth year she  
produced a tragedy called *Agnes du Castra*,  
which was acted in 1695. This was followed  
by *Fatal Friendship*, a tragedy, 1698. *Love at*  
*a Loss*, a comedy, 1701. *The Unhappy Peni-*  
*tent*, a tragedy. *Gustavus Vasa*, a tragedy, 1703,  
acted at the Hay-Market in 1706. She pub-  
R

lished also a defence of her conversion from popery, and different treatises on moral and metaphysical subjects. She married Mr. Cockburne, a clergyman of the church of Scotland, 1708, and died in 1749. Her works were published in 1751, in 2 vols. 8vo.

**TROUBADOURS**, poets who flourished in Provence during the twelfth century. They wrote poems on love and gallantry; on the illustrious characters and remarkable events of the times; satires which were chiefly directed against the clergy and monks; and a few didactic pieces. The troubadours were great favorites in different courts, diffused a taste for their language and for poetry over Europe, which was about that time sunk in ignorance and rudeness; they disappeared in the fourteenth century. A history of the troubadours, in 3 vols. 12mo., was begun by M. de Sainte Palaise, and finished by the abbé Millot.

|   |   |
|---|---|
| <b>TROUBLE</b> , <i>v. a. &amp; n. s.</i> | } Fr. <i>troubler</i> . To disturb; perplex; grieve; tease; harass; engage overmuch; busy: the noun substantive corresponding: a troubler and troublestate is a disturber, particularly of the public: troublesome and troublous, uneasy; vexatious; tumultuous; confused: the adverb and noun substantive corresponding. |
| <b>TROUBLE</b> , <i>n. s.</i>             |   |
| <b>TROUBLESTATE</b> ,                     |   |
| <b>TROUBLESOME</b> , <i>adj.</i>          |   |
| <b>TROUBLESOMELY</b> , <i>adv.</i>        |   |
| <b>TROUBLESOMENESS</b> , <i>n. s.</i>     |   |
| <b>TROUBLOUS</b> , <i>adj.</i>            |   |

Martha, thou art careful, and *troubled* about many things. *Luke x. 41.*

An angel went down into the pool and *troubled* the water; whosoever first after the *troubling* stepped in was made whole. *John v. 4.*

He was sore *troubled* in mind, and much distressed. *1 Mac.*

It would not *trouble* me to be slain for thee, but much it torments me to be slain by thee. *Sidney.*

All this could not make us accuse her, though it made us almost pine away for sight to lose any of our time in so *troublesome* an idleness. *Id.*

No other noise, nor people's *troubulous* cries, As still are wont t' annoy the walled town, Might there be heard. *Spenser.*

Unhappy falls that hard necessity,  
Quoth he, the *troubler* of my happy peace,  
And vowed foe of my felicity. *Id.*

She of late is lightened of her womb,  
That her to see should be but *troublesome*. *Id.*

An hour before the worshipped sun  
Peered through the golden window of the east,  
A *troubled* mind drew me to walk abroad. *Shakspeare.*

Heaven knows  
By what bye-paths and indirect crooked ways  
I met this crown; and I myself know well  
How *troublesome* it sat upon my head:  
To thee it shall descend with better quiet. *Id.*

Then, masters, look to see a *troubulous* world. *Id.*

Heavens hurl down their indignation  
On thee, thou *troubler* of the poor world's peace! *Id.*

Double, double, toil and *trouble*,  
Fire burn, and cauldron bubble. *Id. Macbeth.*

The best temper of minds desireth good name and true honor; the lighter, popularity and applause; the more depraved, subjection and tyranny; as is seen in great conquerors and *troublers* of the world, and more in arch-heretics. *Bacon.*

Seas are *troubled* when they do revoke  
Their flowing waves into themselves again. *Davies.*

Those fair baits these *trouble-states* still use,  
Pretence of common good, the king's ill course,  
Must be cast forth. *Daniel's Civil War.*

He had credit enough with his master to provide  
for his own interest, and *troubled* not himself for that  
of others. *Clarendon.*

Be not dismayed nor *troubled* at these tidings. *Milton.*

They eased the putting off  
These *troublesome* disguises which we wear. *Id.*

But think not here to *trouble* holy rest. *Id.*

They all his host derided, while they stood,  
A while in *trouble*. *Id.*

He knowing well that nation must decline,  
Whose chief support and sinews are of coin,  
Our nation's solid virtue did oppose  
To the rich *troubles* of the world's repose. *Waller.*

He must be very wise that can forbear being *troubled*  
at things very *troublesome*. *Tillotson.*

Though it is in vain to be *troubled* for that which  
I cannot chuse, yet I cannot chuse but be afflicted. *Id.*

Thy force alone their fury can restrain,  
And smooth the waves, or swell the *troubled* main. *Dryden.*

Though men will not be so *troublesomely* critical as  
to correct others in the use of words; yet, where  
truth is concerned, it can be no fault to desire their  
explication. *Locke.*

Never *trouble* yourself about those faults which  
age will cure. *Id. on Education.*

It is not bare agitation, but the sediment at the  
bottom, that *troubles* and defiles the water. *South.*

Though our passage through this world be rough  
and *troublesome*, yet the *trouble* will be but short, and  
the rest and contentment at the end will be an ample  
recompence. *Atterbury.*

The sword justly drawn by us can scarce safely be  
sheathed, till the power of the great *troubler* of our  
peace be pared, as to be under no apprehensions for  
the future. *Id.*

Two or three *troublesome* old nurses never let me  
have a quiet night's rest with knocking me up. *Arbutnot.*

My mother will never be *troublesome* to me. *Pope.*

**TROUEE** [Fr.], an opening; a gap. This  
word is applied to any passage, which is made  
through an abatis, wood or hedge; also to the  
impression of cavalry, when it breaks the line,  
&c. Les cinq *trouées* en champagne, the principal  
openings through which an enemy can penetrate  
into France in the province of Champagne. The duke of Brunswick, in 1792, took  
possession of these openings; and the Prussian  
and Austrian armies passed through them in  
1814 and 1815.

**TROUGH**, *n. s.* Saxon *troh, troh*; Belgic  
*troch*; Dan. *trou*. Any thing hollowed and open  
longitudinally on the upper side.

The bloody boar,  
That spoiled your summer fields and fruitful vines,  
Swills your warm blood like wash, and makes his  
*trough*  
In your embowelled bosoms. *Shakspeare. Richard III.*

They had no ships but big *troughs*, which they call  
canoes. *Abbot's Description of the World.*

That also is accounted virgin quicksilver, which,  
having no need to pass the fire, is separated by water  
first in a sieve, and afterwards in a long *trough*. *Broune's Travels.*



Some log, perhaps, upon the water swam,  
An useless drift, which rudely cut within,

And hollowed, first a floating *trough* became,  
And cross some rivulet passage did begin. *Dryden.*

The water dissolves the particles of salt mixed in the stone, and is conveyed by long *troughs* and canals from the mines to Hall, where it is received in vast cisterns, and boiled off. *Addison.*

TROUL, *v. n.* Belg. *trollen*, to roll. See TROLL. To move volubly.

Let us be jocund. Will you *troul* the catch  
You taught me while-ere? *Shakespeare. Tempest.*

Bred only, and completed, to the taste  
Of lustful appetite; to sing, to dance,  
To dress, and *troul* the tongue, and roll the eye.

*Milton.*

TROUNCE, *v. a.* Derived by Skinner from *Fr. tronc* or *tronson*, a club. To punish by an indictment or information.

More probable, and like to hold,  
Than hand, or seal, or breaking gold;  
For which so many, that renounced  
Their plighted contracts, have been *trounced*.

*Hudibras.*

If you talk of peaching, I'll peach first; I'll  
*trounce* you for offering to corrupt my honesty.

*Dryden's Spanish Fryar.*

TROUSE, *n. s.* } *Fr. trousse*; *Erse truish*.  
TROUSERS. } *Breches*; hose. See TROUSERS.

The leather quilted jack serves under his shirt of mail, and to cover his *trouse* on horseback.

*Spenser on Ireland.*

The unsightliness and pain in the leg may be helped by wearing a laced stocking; a laced *trouse* will do as much for the thigh. *Wiseman's Surgery.*

TROUT, *n. s.* Sax. *truhtr*; Lat. *trocta*, *trutta*. A delicate spotted fish, inhabiting brooks and quick streams.

Here comes the *trout* that must be caught with tickling. *Shakespeare.*

The pond will keep *trout* and salmon in their seasonable plight, but not in their reddish grain.

*Carew.*

Worse than the anarchy at sea,  
Where fishes on each other prey;  
Where every *trout* can make as high rants  
O'er his inferiours as our tyrants.

*Swift.*

TROW, *v. n.* Saxon *treoðian*; Belg. and Dan. *troe*. To think; imagine; conceive.

What handsomeness, *trow* you, can be observed in that speech, which is made one knows not to whom? *Sidney.*

Is there any reasonable man, *trow* you, but will judge it meet that our ceremonies of Christian religion should be Popish, than Turkish or Heathenish?

*Hooker.*

Lend less than thou owest,  
Learn more than thou *trowest*.

*Shakespeare. King Lear.*

To-morrow next

We will for Ireland; and 'tis time, I *trow*.

*Shakespeare.*

TROWBRIDGE, in Wiltshire, a considerable market town, twenty-eight miles north-west from Salisbury, and ninety-eight miles west by south from London. It is irregularly built; none of the streets seem to have been formed according to any predetermined plan. The population is about 10,000, the principal of whom are employed in the manufacture of ker-

seymeres and broad cloths. There are about 2000 acres of land in the parish, which contains a parish church, a chapel of ease, also eight dissenting chapels of various denominations. Trowbridge is not an incorporated town; the government is vested in the county members, who hold alternate petty sessions here and at Bradford. There are also two other courts annually held here, viz. a court leet and a court baron, belonging to the lord of the manor.

TROWEL, *n. s.* *Fr. truelle*; Lat. *trulla*. A tool to take up the mortar with, and spread it on the bricks, &c.

How shall I answer you?

—As wit and fortune will.

—Or as the destinies decree.

—Well said, that was laid on with a *trout*.

*Shakespeare.*

The most accurate engravings or embossments seem such rude, bungling, deformed works, as if they had been done with a mattock, or a *trowel*.

*Wilkins.*

This was dexterous at his *trowel*,  
That was bred to kill a cow well.

*Swift.*

TROY, an ancient city of Phrygia, the destruction of which affords the subject of Homer's *Iliad*. It had eight kings; though some enumerate only six; viz. 1. Scamander, the founder; 2. Teucer his son; 3. Dardanus his son-in-law; 4. Erichthonius his son; 5. Tros; 6. Ilus his son; 7. Laomedon, in whose reign Troy was taken and sacked by Hercules; and 8. Priam, under whom it was destroyed. Of all the wars of antiquity that of Troy is the most famous, particularly immortalised in the *Iliad* and the *Æneid*. Much discussion has taken place among the learned as to the reality of the events and the seat of the place. We may refer particularly to Bryant and Chevalier. The latter published a description of the plan of Troy in the second volume of the *Transactions of the Royal Society of Edinburgh*. He fixes the site of the place and the various scenes described by Homer. He describes particularly the tombs of Eryetes, Ilus, Ajax, Hector, Achilles, Patroclus, and Antilochus. The dissertation was translated and enriched with large notes and illustrations by Mr. Dalzel, Greek professor in the university of Edinburgh. Various English travellers have more recently visited those interesting scenes of classic times, and several publications of note have appeared, particularly by Sir W. Gell, occasioning much diversity of opinion, and much learned discussion on questions now only interesting from their classical celebrity. Long. 26° 30' E., lat. 39° 40' N.

TROYWEIGHT, *n. s.* } From *Fr. Troies*

TROY. } See TROYES. A kind

of weight by which gold and silver are weighed, consisting of these denominations: a pound = 12 ounces; ounce = 20 pennyweights; pennyweight = 24 grains. See WEIGHTS.

The Romans left their ounce in Britain, now our averdupois ounce, for our *troy ounce* we had elsewhere. *Arbuthnot.*

TROY-WEIGHT, one of the most ancient of the different kinds used in Britain. The ounce of this weight was brought from Grand Cairo in Egypt about the time of the crusades into

Europe, and first adopted in Troyes, a city of France, whence the name.

**TROYES**, a large town in Champagne, France, the capital of the department of the Aube. It is situated between two fine meadows on the Seine, which is here comparatively small, and divided into several channels, of great convenience for manufacturing purposes, but not navigable. The water is unfit for drinking, but excellent for bleaching, dyeing, &c. The town is surrounded with a wall, but ill-built, the chief material being wood: the manufactures are considerable in cotton and cotton stockings. Woolen, linen, leather, and thread are also made here on a smaller scale.

Troyes is an ancient place, having been noted in the middle ages for its fairs, where merchandise was sold by Troyes or Troy weight. Its chief edifices are churches; particularly the cathedral. The castle was long the residence of the counts of Champagne: its public mall, or walk, extending along the ramparts, is of great length. Here are also a hotel de ville, a lycée or central school, public library, and society of arts. In the campaign of 1814 this town was entered by the allies on the 7th of February; retaken by Buonaparte on the 23d of that month; and finally re-occupied by the allies on the 4th of March. It is the seat of an archbishop, and of the administration of the department of the Aube. Pope Urban IV. was a native of Troyes. Forty-two miles north-east of Auxerre, seventy south of Rheims, and 100 south-east of Paris.

**TRUANT**, *n. s.*, *adj.*, & *v. n.* } Old Fr. *tru-*

**TRUANTSHIP**, *n. s.* } and; Belg.

*truwant*, a vagabond. An idler; one who wanders idly about, neglecting his duty or employment. To play the truant is, in schools, to stay from school without leave: idle; wandering from business; lazy: to idle at a distance from duty; to loiter; to be lazy: idleness; negligence.

The master should not chide with him if the child hath done his diligence, and used no *truantskip*.

*Ascham.*

For my part, I may speak it to my shame,

I have a *truant* been to chivalry. *Shakspeare.*

Though myself have been an idle *truant*,

Omitting the sweet benefit of time,

To clothe mine age with angel-like perfection,

Yet hath Sir Protheus made fair advantage of his days. *Id.* *Two Gentlemen of Verona.*

What keeps you from Wertemberg?

—A *truant* disposition, good my lord. *Id.* *Hamlet.*

He made a blushing cital of himself,

And chid his *truant* youth with such a grace,

As if he mastered there a double spirit,

Of teaching, and of learning instantly. *Shakspeare.*

'Tis double wrong to *truant* with your bed,

And let her read it in thy looks at board. *Id.*

Providence would only initiate mankind into the knowledge of her treasures, leaving the rest to our industry, that we might not live like idle loiterers and *truants*. *More.*

**TRUCE**, *n. s.* Old Fr. *truie*; Ital. *tregua*; low Lat. *truga*. A temporary peace; cessation of hostilities; intermission; quiet.

Men shall be lovers of their own selves, without natural affection, *truce* breakers. *2 Tim. iii. 3.*

They pray in vain to have sin pardoned, which seek not also to prevent sin by prayer, even every particular sin, by prayer against all sin, except men

can name some transgression wherewith we ought to have *truce*. *Hooker.*

This token serveth for a flag of *truce*  
Betwixt ourselves and all our followers.

*Shakspeare.*

There he may find

*Truce* to his restless thoughts, and entertain  
The irksome hours. *Milton.*

Sicknesses, which in the latter years of his life  
gave him but short and seldom *truce*. *Fell.*

Shadwell till death true dulness would maintain;  
And in his father's right, and realm's defence,  
Ne'er would have peace with wit, nor *truce* with  
sense. *Dryden.*

**TRUCK**, *v. a.* & *n. s.* } Fr. *troc*; Danish  
**TRUCKLE**, *v. n.* } *trac*; Belg. *trek*. To

**TRUCKLEBED**, *n. s.* } give in exchange; ex-  
change; traffic; barter: also a low carriage for  
goods: and hence probably is derived trucklebed,  
which is one bed run under another; and truckle,  
to creep; yield; be in subjection, or inferi-  
ority.

There's his chamber, his house, his castle, his  
standing bed and *trucklebed*.

*Shakspeare. Merry Wives of Windsor.*

Shall our nation be in bondage thus

Unto a land that *truckles* under us? *Cleaveland.*

If he that is in battle slain

Be in the bed of honour lain;

He that is beaten may be said

To lie in honour's *trucklebed*. *Hudibras.*

For which so many a legal cuckold

Has been run down in courts, and *truckled*. *Id.*

Love is covetous; I must have all of you; heart  
for heart is an equal *truck*. *Dryden.*

It is no less requisite to maintain a *truck* in moral  
offices, than in the common business of commerce.

*L'Estrange.*

The Indians *truck* gold for glasses. *Id.*

Men may be stiff and obstinate upon a wrong  
ground, and ply and *truckle* too upon as false a  
foundation. *Id.*

Religion itself is forced to *truckle* to worldly po-  
licy. *Norris.*

I see nothing left us, but to *truck* and barter our  
goods, like the wild Indians, with each other.

*Swift.*

To raise his post or fill his coffers,

Perhaps he might have *truckled* down,

Like other brethren of his gown. *Id.*

**TRUCULENT**, *adj.* Lat. *truculentus*. Sa-  
vage; barbarous.

Pestilential seminaries, according to their grossness  
or subtlety, cause more or less *truculent* plagues,  
some of such malignity that they enecate in two  
hours. *Harvey on the Plague.*

A barbarous Scythia, where the savage and *trucu-  
lent* inhabitants transfer themselves from place to  
place in waggons, as they can find pasture, and live  
upon milk, and flesh roasted in the sun at the pomels  
of their saddles. *Ray.*

**TRUDGE**, *v. n.* Goth. *trudga*. To travel  
laboriously; jog or march heavily on.

No man is secure but night-walking heralds,  
That *trudge* between the king and mistress Shore.

*Shakspeare.*

No sooner was he fit to *trudge*,

But both made ready to dislodge. *Hudibras.*

Away they *trudged* together, and about midnight  
got to their journey's end. *L'Estrange.*

And *trudged* to Rome upon my naked feet.

*Dryden.*



TRUE, *adj.*

TRUE'BORN,

TRUE'BRED,

TRUE'HEARTED,

TRUE'LOVEKNOT, *n. s.*

TRUE'NESS,

TRUE'PENNY,

TRU'LY, *adv.*Saxon *træopa*,*trupa*; Gothic *tru*;Teut. *tru*. Accord-

ing to truth; real;

exact; faithful; ho-

nest; sincere; right-

ful: the three follow-

ing adjectives corres-

ponding: true-love-knots are lines drawn through each other as emblems of affection: true-penny, an honest fellow: truly and truiness correspond with true.

A true witness delivereth souls.

*Proverbs.*

The darkness is past, and the true light now shineth.

*1 John.*

They thought they might do it, not only willingly, because they loved him; and truly, because such indeed was the mind of the people; but safely, because she who ruled the king was agreed thereto.

*Sidney.*

Of those he chose the falsest two,

And fittest for to forge true seeming lies.

*Spenser.*

No untruth can avail the patron long; for things most truly are most behovefully spoken.

*Hooker.*

Teeth hadst thou in thy head when thou wast born;

And, if the rest be true which I have heard,

Thou camest into the world with thy legs forward.

*Shakspeare.*

So young, and so untender?

—So young, my lord, and true.

*Id.*

Two of them I know to be as true-bred cowards as ever turned back.

*Id.*

I have known no honester or true-hearted man: fare thee well.

*Id.*

Sayest thou so? art thou there, true-penny?

Come on.

*Id.*

Let him that is a true-born gentleman,

And stands upon the honour of his birth,

From off this briar pluck a white rose with me.

*Id.*

The even carriage between two factions proceedeth not always of moderation, but of a truiness to a man's self, with end to make use of both.

*Bacon's Essays.*

I have not undertaken it out of any wanton pleasure in mine own pen; nor truly without often pondering with myself beforehand what censures I might incur.

*Wotton.*

Unbind the charms that in slight fables lie,

And teach that truth is truest poesy.

*Cowley.*

Wisdom alone is truly fair.

*Milton.*

Among unequals what society

Can sort? What harmony or true delight?

*Id.*

They seize the sceptre;

Then lose it to a stranger, that the true

Anointed King Messiah might be born

Barred of his right.

*Id.*

I'll carve you name on barks of trees

With true-love-knots, and flourishes,

That shall infuse eternal spring.

*Hudibras.*

The first great work

Is, that yourself may to yourself be true.

*Roscommon.*

Such as are efficaciously called, justified, and sanctified, while they live, are truly holy, and, when they die, are perfectly holy.

*Pearson.*

When this fire is kindled, both sides inflame it: all regard of merit is lost in persons employed, and these only chosen that are true to the party.

*Temple.*

Bauble do you call him? he's a substantial true-bred beast, bravely forehanded.

*Dryden's Don Sebastian.*

If all those great painters, who have left us such

fair platforms, had rigorously observed it, they had made things more regularly true, but withal very unpleasing.

*Id. Dufresnoy.*

True to the king her principles are found.

*Dryden.*

Right reason is nothing else but the mind of man judging of things truly, and as they are in themselves.

*South.*

He drew

A circle regularly true.

*Prior.*

Religion, as it is the most valuable thing in the world, so it gives the truest value to them who promote the practice of it by their example and authority.

*Atterbury.*

True to his charge, the bard preserved her long In honour's limits; such the power of song.

*Pope.*

TRUFFLE, *n. s.* French *truffe*, *truffe*.

In Italy, the usual method for the finding of truffles or subterraneous mushrooms, called by the Italians *tartufali*, and in Latin *tubera terræ*, is by tying a cord to the hind leg of a pig, and driving him, observing where he begins to root.

*Ray.*

TRULL, *n. s.* Italian *trulla*. A low whore; a strumpet.

I'm sure I scared the dauphin and his trull.

*Shakspeare.*

A trull who sits

By the town-wall, and for her living knits.

*Dryden.*

TRUMBULL (Sir William), an English statesman, born in Berkshire in 1636. He went ambassador to France, and was some time secretary of state. He is known in literature chiefly as the early patron and correspondent of Pope. He died in 1710.

TRUMP, *n. s.*

TRUMP'ET, *n. s.* & *v. a.*

TRUMP'ETER, *n. s.*

TRUMP'ETTINGUED, *adj.*

TRUMP'ETLIKE.

Saxon *træmpa*;

Belgic and old Fr.

*trompe*; Ital. *trom-*

*ba*. An instru-

ment of warlike

music: the card so called is perhaps from a corruption of TRIUMPH, which see. A trumpet is also used for a trumpeter, or one who blows a trumpet; as are both words for one who celebrates, or loudly praises, or publishes any thing: trumpettongued is vociferous; loud; clamorous: trumpelike is resembling a trumpet.

Whilst any trump did sound, or drum struck up, His sword did ne'er leaving striking in the field.

*Shakspeare.*

Trumpeters,

With brazen din blast you the city's ear,

Make mingle with our rattling tabourines.

*Id.*

What's the business,

That such a hideous trumpet calls to parley

The sleepers of the house?

*Id.*

This Duncan's virtues

Will plead, like angels, trumpet-tongued, against

The deep damnation of his taking off.

*Id. Macbeth.*

Why so tart a favour

To trumpet such good tidings?

*Shakspeare.*

They went with sound of trumpet; for they did nothing but publish and trumpet all the reproaches they could devise against the Irish.

*Bacon's War with Spain.*

Where there is an opinion to be created of virtue or greatness, these men are good trumpeters.

*Id. Essays.*

A breast of brasse, a voyce

Infraet and trump-like.

*Chapman.*

As they returned, a herald and *trumpeter* from the Scots overtook them. Hayward.

As dispers'd soldiers, at the *trumpet's* call, Haste to their colours all. Cowley.

He wisely desired that a *trumpet* might be first sent for a pass. Clarendon.

He blew His *trumpet*, heard in Oreb since perhaps When God descended, and perhaps once more To sound at general doom. The angelick blast Filled all the regions. Milton.

The last loud *trumpet's* wondrous sound Shall through the rending tombs rebound, And wake the nations under ground. Roscommon.

Things of deep sense we may in prose unfold But they move more in lofty numbers told; By the loud *trumpet* which our courage aids We learn that sound, as well as sense, persuades. Waller.

I heard The neighing coursers and the soldiers cry, And sounding *trumps* that seemed to tear the sky. Dryden.

The *trumpet's* loud clangor Excites us to arms, With shrill notes of anger, And mortal alarms. Id. We are now put upon our last *trump*; the fox is earthen, but I shall send my two terriers in after him. Id.

That great politician was pleased to have the greatest wit of those times in his interests, and to be the *trumpet* of his praises. Id.

Every man is the maker of his own fortune, and must be in some measure the *trumpet* of his fame. Tatler.

How came so many thousands to fight, and die in the same rebellion? why were they deceived into it by those spiritual *trumpeters*, who followed them with continual alarms of damnation if they did not venture life, fortune, and all, in that which those impostors called the cause of God? South.

Among our forefathers, the enemy, when there was a king in the field, demanded by a *trumpet* in what part he resided, that they might avoid firing upon the royal pavilion. Addison.

An army of *trumpeters* would give as great a strength as this confederacy of tongue warriors, who, like those military musicians, content themselves with animating their friends to battle. Id. Freeholder.

Let the loud *trumpet* sound, Till the roofs all around The shrill echoes rebound. Pope. Now her heart with pleasure jumps, She scarce remembers what is *trumps*. Swift. When the archangel's *trump* shall blow, And souls to bodies join, What crowds shall wish their lives below Had been as short as thine! Wesley.

TRUMPERY, *n. s.* Fr. *tromperie*, a cheat. Something fallaciously splendid, or of less value than it seems; falsehood; trifles.

The *trumpery* in my house bring hither, For state to catch these thieves. Shakspeare. Tempest.

Breaking into parts the story of the creation, and delivering it over in a mystical sense, wrapping it up mixed with other their own *trumpery*, they have sought to obscure the truth thereof. Raleigh's History of the World.

Embrios and idiots, eremits and friars, White, black, and grey, with all their *trumpery*. Milton.

Another cavity of the head was stuffed with billet-doux, pricked dances, and other *trumpery* of the same nature. Addison.

The TRUMPET is used chiefly in war, among the cavalry, to direct them in the service. Some Greek historians ascribe the invention to the Tyrrhenians; but others, with greater probability, to the Egyptians. The trumpet was not in use among the Greeks at the time of the Trojan war; though it was in common use in the time of Homer. According to Potter (Arch. Græc vol. ii. cap. 9), before the invention of trumpets, the first signals of battle in primitive wars were lighted torches; to these succeeded shells of fishes, which were sounded like trumpets.

That the speaking trumpet was well known to the ancient Greeks, the trumpet of Alexander, and the whispering caverns of Dionysius, will not allow us to doubt. It is also certain, from Beritaria's History of the Jesuits, that this instrument was in use in Peru in the sixteenth century. About the middle of the last century, Athanasius Kircher, in different works, threw out many useful and scientific hints on the construction of speaking trumpets (see ACOUSTICS, and KIRCHER); which for some time did not attract much notice. About the year 1670, Sir Samuel Morland exhibited some instruments which he called stentorophonic horns, which conveyed articulate sounds to a surprising distance, and he proposed a question to the Royal Society, respecting the best form for a speaking trumpet, vindicating at the same time that of his own instrument, which was conical, suddenly spreading at the mouth. The subject attracted attention on the continent, and a Mr. Gassegrain proposed a conoid, formed by the revolution of a hyperbola round its asymptote, as the best form. A Mr. Hase of Wirtemberg, on the other hand, proposed a parabolic conoid, having the mouth of the speaker placed in the focus. Which form is the best? is a question that involves some profound mathematical considerations. Mr. Lambert of Berlin reasons in the following manner in favor of the conical shape, which is universally adopted:—Sound naturally spreads in all directions; but we know that echoes or reflected sounds proceed almost strictly in certain limited directions. If therefore we contrive a trumpet in such a way that the lines of echo shall be confined within a certain space, it is reasonable to suppose that the sound will become more audible, in proportion as this diffusion is prevented. Therefore, if we can oblige a sound, which in the open air would have diffused itself over a hemisphere, to keep within a cone of 120°, we should expect it to be twice as audible within this cone. This will be accomplished by making the reflexions such that the lines of reflected sound shall be confined within this cone. We here suppose that nothing is lost in the reflexion.

The construction of a speaking trumpet is a problem, certainly, of some nicety; and, as the trials are always made at some considerable distance, it may frequently happen that a trumpet, which is not heard at one mile's distance, may be made very audible two miles off by cutting off a piece at its wide end. We shall find the parabolic



conoid the preferable shape for an acoustic trumpet; because, the sounds coming into the instrument in a direction parallel to the axis, they are reflected so as to pass through the focus. The parabolic conoid must therefore be cut through the focus, that the sounds may not go out again by the subsequent reflections; and they must be received into a cylindrical pipe of one-third of an inch in diameter. Therefore the parameter of this parabola is one-sixth of an inch, and the focus is one-twelfth of an inch from the vertex. This determines the whole instrument; for they are all portions of one parabolic conoid. Suppose that the instrument is required to approximate the sound twelve times, as in the example of the conical instrument: the ordinate at the mouth must be twelve times the sixth of an inch, or two inches; and the mouth diameter is four inches, as in the conical instrument. In trumpets for assisting the hearing, all reverberations of the trumpet must be avoided. It must be made thick, of the least elastic materials, and covered with cloth externally. For all reverberation lasts for a short time, and produces new sounds which mix with those that are coming in. We must also observe that no acoustic trumpet can separate those sounds to which we listen, from others that are made in the same direction. All are received by it, and magnified in the same proportion. This is frequently a very great inconvenience. There is also another imperfection, which we imagine cannot be removed, namely, an odd confusion, which cannot be called indistinctness, but a feeling as if we were in the midst of an echoing room. The cause seems to be this: hearing gives us some perception of the direction of the sounding object, not indeed very precise, but sufficiently so for most purposes. In all instruments which we have described for constituting sounds, the last reflections are made in directions very much inclined to the axis, and inclined in many different degrees. Therefore they have the appearance of coming from different quarters; and, instead of the perception of a single speaker, we have that of a sounding surface of great extent. We do not know any method of preventing this, and at the same time increasing the sound.

**TRUMPET, MARINE**, is a musical instrument consisting of three tables, which form its triangular body. It has a very long neck with one single string, very thick, mounted on a bridge, which is firm on one side, but tremulous on the other. It is struck by a bow with one hand, and with the other the string is pressed or stopped on the neck by the thumb. It is the trembling of the bridge when struck, that makes it imitate the sound of a trumpet; which it does to that perfection that it is scarcely possible to distinguish the one from the other. And this is what has given it the denomination of marine trumpet, though, in propriety, it be a kind of monochord. Of the six divisions on the neck of the instrument, the first makes a fifth with the open chord, the second an octave, and so on for the rest, corresponding with the intervals of the military trumpet.

**TRUNCHEON, n. s. & f.** Fr. *tronçon*. A **TRUNCHEONEER**. [*v. a.*] short staff; club;

cudgel: to beat with a truncheon: one armed with a truncheon.

With his truncheon he so rudely stroke  
Cymocles twice, that twice him forced his foot re-  
voke. *Spenser.*

The hand of Mars  
Beckoned with fiery truncheon may retire.

*Shakspeare.*

Captain! thou abominable cheater! If captains  
were of my mind, they would truncheon you out of  
taking their names upon you before you earned them.

*Id.*

I mist the meteor once, and hit that woman, who  
cried out, Chibs! when I might see from far some  
forty truncheoneers draw to her succour.

*Id. Henry VIII.*

The English slew divers of them with plummets  
of lead tied to a truncheon or staff by a cord.

*Hayward.*

One with a broken truncheon deals his blows.

*Dryden.*

**TRUNDLE, v. n.** } Sax. *trænbl*, a bowl;  
**TRUNDLE-TAIL, n. s.** } Picard. Fr. *trondeler*.  
To roll; bowl along: a trundle-tail is a round  
tail.

Avant, you curs!

Hound or spaniel, brache or lym,  
Or bobtail like, or trundle-tail.

*Shakspeare. King Lear.*

In the four first it is heaved up by several spon-  
dees intermixed with proper breathing places, and at  
last trundles down in a continued line of dactyls.

*Addison's Spectator.*

A **TRUNDLE** is a carriage with low wheels, on  
which heavy and cumbersome burdens are drawn.  
**TRUNK, n. s.** } Fr. *tronc*; Lat. *truncus*.  
**TRUNK'ED, adj.** } The body of a tree; hence  
**TRUNKHOSE, n. s.** } of an animal; the main  
body of any thing; a chest for clothes; a long  
tube: to trunk is, to lop; maim; truncate:  
trunked, having a trunk: trunkhose, large  
breaches of former times.

Large streams of blood out of the trunked stock  
Forth gushed, like water streams from riven rock.

*Spenser.*

The charm and venom which they drunk  
Their blood with secret filth infected hath,  
Being diffused through the senseless trunk. *Id.*

He was

The ivy, which had hid my princely trunk,  
And suckt my verdure out on't.

*Shakspeare.*

Neither press, coffer, chest, trunk, well, vault, but  
he hath an abstract for the remembrance of such  
places. *Id.*

In rolls of parchment trunks, the mouth being laid  
to the one end and the ear to the other, the sound is  
heard much farther than in the open air.

*Bacon's Natural History.*

She is thick set with strong and well trunked  
trees. *Howel.*

About the mossy trunk I wound me soon;  
For high from ground the branches would require  
Thy utmost reach. *Milton's Paradise Lost.*

Leviathan that at his gills  
Draws in, and at his trunk spouts out a sea.

*Milton.*

Some odd fantastick lord would fain  
Carry in trunks, and all my drudgery do. *Dryden.*

When elephant 'gainst elephant did rear  
His trunk, and castles jostled in the air,  
My sword thy way to victory had shown. *Id.*

Where a young man learned to dance, there hap-  
pened to stand an old trunk in the room; the idea

of which had so mixed itself with the turns of all his dances, that though he could dance excellently well, yet it was only whilst that *trunk* was there. *Locho.*

The large *trunks* of the veins discharge the re-fluent blood into the next adjacent *trunk*, and so on to the heart. *Ray.*

The short *trunk-hose* shall show thy foot and knee Licentious, and to common eye-sight free ; And with a bolder stride, and looser air, Mingled with men, a man thou must appear. *Prior.*

Some of the largest trees have seeds no bigger than some diminutive plants, and yet every seed is a perfect plant, with a *trunk*, branches, and leaves, inclosed in a shell. *Bentley.*

Your poem sunk,  
And sent in quires to line a *trunk* :  
If still you be disposed to rhyme,  
Go try your hand a second time. *Swift.*

**TRUNK**, in botany, that part of the herb which arises immediately from the root, and is terminated by fructification; the leaves, buds, and auxiliary parts of the herb, not entering in its description. See **BOTANY**, Index.

**TRURO**, a borough and market-town, in the hundred of Powder; distant 255 miles W. S. W. from London; eighty-two south-west from Exeter; and fifty-three nearly west from Devonport. It contains 400 houses, and about 3000 inhabitants, in what is strictly named the borough, which extends over the whole parish of St. Mary's; and the neighbouring streets or suburbs, in the parishes of St. Clement and Kenwyn, contain nearly double that number. Although the town is of no very remote antiquity, yet its central situation with respect to the commerce and chief productions of the country, its improved and improving state, the handsome appearance of several of its streets and buildings, its increased population, and the similarity of its local regulations to those of the principal cities of the kingdom, justly entitle it to be considered as the metropolis of the county.—It is situated in a deep dell, at the conflux of the two small rivers Kenwyn and St. Allen, which direct their streams on each side of the town, and at the bottom unite with a branch of Falmouth harbour, commonly called Truro Creek or River.—At every spring tide the collected waters form a fine lake, two miles in length, and of sufficient depth to be navigable for vessels of upwards of 100 tons burden; which advantageous situation has, without doubt, been the principal cause of the rapid improvement of the town. Truro returns two members to parliament. This privilege was conferred in the twenty-third year of Edward I., and the right of election was vested in the mayor, four aldermen, and twenty capital burgesses. The trade of Truro consists principally in exporting tin and copper ore; the former to the Mediterranean, and the latter to Wales. Coals are brought here by vessels from the principality, and timber (used chiefly in the mines) by ships from Norway. On the great road to Falmouth (rising with gentle acclivity on a considerable hill) an elegant new street, called Lemon Street, has been formed, in which sufficient attention has been paid to space and convenience. The houses are built on a regular scale, and faced with granite. The town consists of

about twelve streets, through the principal of which run the roads to St. Austell, on the east; to Falmouth, on the south; to Redruth, on the west; and to Bodmin, on the north. The town, being nearly surrounded by water, is connected with its suburbs by short stone bridges, which derive their names from the direction in which they lie, as the east-bridge, the west-bridge, &c. The public buildings are as follow:—the church, a spacious and handsome fabric, of that elegant kind of architecture which flourished in England about the time of Henry VII. It stands near the centre of the town in an open space called the Cross. The town-hall, which stands over the principal entrance of the market, is a plain, substantial building of stone, consisting of two large airy rooms, in which the magisterial business of the town is transacted, and the Easter quarter sessions for the county, as well as the petty sessions for the western division of the hundred, are held. The coinage-hall is an ancient heavy structure, standing at the east end of Boscawen Street, in which the process of coining the tin is carried on every quarter, and where the parliaments of the lord-warden of the stanneries, and the courts of his vice-warden, are held for the adjudication of all matters connected with the tin trade. The building has lately been repaired and much improved in its appearance by the late John Vivian, esq., of Truro, then vice-warden, who succeeded to that office on the resignation of John Thomas, esq., of Chiverton, in this neighbourhood. The vice-warden's courts are held regularly on the first Tuesday in every month, but the parliaments are very unusually assembled. The theatre, which stands in the High Cross, possesses no exterior beauty, but is so judiciously contrived within as to be either perfectly adapted for scenic representations, or easily converted into an elegant ball room connected with which are card rooms, and apartments for refreshments. The county infirmary stands on an eminence at the south-west part of the town, and is in the parish of Kenwyn. It is a plain and spacious stone building, well situated with respect to airiness and other conveniences. It was erected by public donations in the year 1799, and is supported by voluntary contributions. The market, which is also of modern erection, is compact and convenient, although rather too small for the increasing population of the town. The market days are Wednesdays and Saturdays, on the latter of which it is abundantly supplied with butchers' meat, poultry, fish, vegetables, and other edibles. Fairs are held here on the Wednesday in Mid-Lent, Wednesday in Whitsun-week, the 19th of November, and the 8th of December. Meeting houses for Independents, Baptists, Methodists, and other sects of dissenters, are in different parts of the town, some of which have Sunday-schools attached to them.

**TRUSION**, *n. s.* Latin *t-rudo*. The act of thrusting or pushing.

By attraction we do not understand drawing, pumping, sucking, which is really pulsion and *trusion*. *Bentley.*

**TRUSLER** (Dr. John), a literary compiler, born in London in 1735, and brought up in one



of the humblest lines of physic, contrived to get into holy orders, and for some time officiated as a curate. At length, in 1771, he hit upon the more profitable scheme of composing abridgments of popular sermons, printed in imitation of manuscript. He next established a bookselling concern upon an extensive scale, and by business and the success of his numerous compilations for youth, &c., realised a handsome fortune. He died at Englefield-green, where he had purchased an estate, in 1820. The best of his compilations are his *Hogarth Moralised*, and a *Compendium of Chronology*.

TRUSS, *n. s. & v. a.* *Fr. trousse.* A bandage by which ruptures are restrained from lapsing; any thing closely wrapped or thrust together; a bundle: to pack close together.

All as a poor pedler he did wend,  
Bearing a *truss* of trifles at his back,  
As belles and babies, and glasses in his pack.

*Spenser.*

What in most English writers useth to be loose and untight, in this author is well grounded, finely framed, and strongly *trussed* up together.

*Id.*

Some of them send the scriptures before, *truss* up bag and baggage, make themselves in a readiness, that they may fly from city to city.

*Hooker.*

You might have *trussed* him and all his apparel into an eel-skin.

*Shakspeare. Henry IV.*

The rebels first won the plain at the hill's foot by assault, and then the even ground on the top, by carrying up great *trusses* of hay before them, to dead their shot.

*Carew.*

An ass was wishing for a mouthful of fresh grass to knap upon, in exchange for a heartless *truss* of straw.

*L'Estrange.*

The fair one devoured a *truss* of sallet, and drank a full bottle to her share.

*Addison. Spectator.*

A hernia would succeed, and the patient be put to the trouble of wearing a *truss*.

*Wiseman's Surgery.*

TRUSS, in a ship, a machine employed to pull a yard home to its respective mast, and retain it firmly in that position.

A TRUSS of HAY contains fifty-six pounds, or half a hundred weight: thirty-six trusses make a load.

|  |   |
|--|---|
| TRUST, <i>n. s., v. a., &amp;</i>      | { Goth. and Runic<br><i>traustr</i> ; Swedish and<br><i>trout</i> . Teut. <i>trout</i> . Confi-<br>dence; reliance;<br>credit; confident<br>opinion; deposit; |
| TRUSTEE, <i>n. s.</i> [ <i>v. n.</i> ] |   |
| TRUSTER,                               |   |
| TRUSTINESS,                            |   |
| TRUSTLESS, <i>adj.</i>                 |   |
| TRUSTY.                                |   |

state of having something confided to one: the verb corresponds: a trustee is one entrusted: a truster, he who trusts: trustiness, and the adjectives following correspond.

The Lord is a buckler to all that *trust* in him.

*2 Samuel, xxii.*

He removeth away the speech of the *trusty*, and taketh away the understanding of the aged.

*Job, xii. 26.*

I *trust* to come unto you, and speak face to face.

*2 John.*

When he saw no power might prevail,  
His *trusty* sword he called to his aid.

*Spenser.*

I beheld this fickle *trustless* state  
Of vain world's glory flirting to and fro.

*Id.*

I serve him truly, that will put me in *trust*.

*Shakspeare. King Lear.*

This *trusty* servant

Shall pass between us.

*Id.*

Nor shall you do mine ear that violence,  
To make it *truster* of your own report  
Against yourself.

*Id. Hamlet.*

Well you may fear too far—

—Safer than *trust* too far.

*Shakspeare.*

What a fool is honesty! and *trust* his sworn brother, a very simple gentleman.

*Id.*

Even such is time, who takes on *trust*

Our youth, our joys, our all we have,

And pays us but with age and dust.

*Raleigh.*

They cannot see all with their own eyes; they must commit many great *trusts* to their ministers.

*Bacon.*

I'd be torn in pieces ere I'd *trust* a woman

With wind.

*Ben Jonson.*

Having made choice of such a confessor that you may *trust* your soul with, sincerely open your heart to him, and look upon him only as he is a *trustee* from God, commissioned by him as his ministerial deputy, to hear, judge, and absolve you.

*Taylor's Guide to a Penitent.*

Being transplanted out of his cold barren diocese he was left in that great *trust* with the king.

*Clarendon.*

Expect no more from servants than is just;  
Reward them well, if they observe their *trust*.

*Denham.*

Fooled by thee to *trust* thee from my side.

His *trust* was with the Eternal to be deemed

Equal in strength.

*Id.*

Whom I *trusted* to be my friend, all I had was in his power, and by God's blessing I was never deceived in my *trust*.

*Fell.*

In my wretched case 't will be more just

Not to have promised, than deceive your *trust*.

*Dryden.*

Guyomar his *trusty* slave has sent.

*Id. Indian Emperour.*

Whom with your power and fortune, Sir, you *trust*,  
Now to suspect is vain.

*Dryden.*

You are not the *trustees* of the public liberty; and, if you have not right to petition in a crowd, much less to intermeddle in the management of affairs.

*Id.*

The simplicity of the goat shews us what an honest man is to *trust* to that keeps a knave company.

*L'Estrange.*

Most take things upon *trust*, and misemploy their assent by lazily enslaving their minds to the dictates of others.

*Locke.*

If the good qualities which lie dispersed among other creatures, innocence in a sheep, *trustiness* in a dog, are singly so commendable, how excellent is the mind which ennobles them into virtues!

*Grew's Cosmologia.*

These prodigious treasures, which flowed into him, he buried under ground by the hands of his most *trusty* slaves.

*Addison.*

My misfortunes may be of use to credulous minds, never to put too much *trust* in deceitful men.

*Swift.*

TRUTH, *n. s.* Saxon *treowþa*, i. e. truth-hood. Reality; veracity; conformity of notion or words to things; constancy; fidelity; right opinion; exactitude: used by way of concession, as in the first example from Scripture.

Of a *truth*, Lord, the kings of Assyria have destroyed the nations.

*2 Kings, xix. 17.*

She said, *truth*, Lord: yet the dogs eat of the crumbs which fall.

*Matt. xv. 27.*

In *truth*, what should any prayer, framed to the ministers's hand, require, but only so to be read as becometh!

*Hooker*

The money I tender for him in the court ;  
If this will not suffice, it must appear  
That malice bears down truth. *Shakspeare.*

So young and true,  
—Let it be so, thy truth then be thy dower. *Id.*  
All truths are equal, veritas non recipit magis ac minus. *Wilkins.*

Persuasive words, impregn'd  
With reason to her seeming and with truth. *Milton.*

That men are pubescent at the year of twice seven,  
is accounted a punctual truth. *Browne.*

Truth is the joining or separating of signs, as the  
things signified agree or disagree. *Locke.*

Ploughs to go true depend much upon the truth  
of the iron-work. *Mortimer's Husbandry.*

But, self-devoted from the prime of youth  
To life sequestered, and ascetic truth,  
With fasting mortified, worn out with tears,  
And bent beneath the load of seventy years. *Harte.*

There are innumerable truths with which we are  
wholly unacquainted. *Beattie.*

The thoughts of past pleasure and truth,  
The best of all blessings below. *Song.*

TRUTH, a term used in opposition to falsehood,  
and applied to propositions which answer or accord  
to the nature and reality of the thing whereof  
something is affirmed or denied. See METAPHYSICS.

TRUTINATION, *n. s.* Latin *trutina*. The  
act of weighing ; examination by the scale.

Men may mistake if they distinguish not the sense  
of levity unto themselves, and in regard of the scale  
or decision of trutination.

*Browne's Vulgar Errors.*

TRUXILLO, a city of the Carraccas, in  
Colombia, was formerly very splendid and flour-  
ishing, being founded in 1570. In the first cen-  
tury of its foundation, it had edifices that would  
have been deemed splendid in Europe ; and drew  
hither a number of Spaniards : but in 1678 the  
buccaneer, Francis Gramont, entered Venezuela,  
with a handful of men, attacked and completely  
sacked and destroyed this wealthy city, killing or  
putting to flight its inhabitants, and reducing its  
superb edifices to ashes. The ruins of many  
still remain. Since this period Truxillo has  
never revived to the same extent of prosperity.  
The salubrity of the air, and the fertility of the  
soil, have, however, drawn together about 7600  
inhabitants.

TRUXILLO, a town of Guatemala, Central  
America, situated between two rivers of good  
water, on a hill near the sea in Truxillo Bay.  
This sea-port has very often been ravaged by the  
Dutch and British. It is at present a place of  
little account, though made, by some writers, the  
capital. It is ninety miles north of Valladolid.

TRUXILLO, the most northern intendancy of  
Peru, bounded by the river Tumbes and Guaya-  
quil on the north-west ; Jaen de Bracamoros on  
the north-east ; the Lauricocha or Tunguragua on  
the north ; the Rio Guallaga and Pampas del  
Sacramento on the east ; the Pacific on the  
west ; and the province of Tarma on the south ;  
containing within its limits seven jurisdictions ;  
viz., Sana, Piuru, Truxillo, Caxamarca, Cha-  
chopoyas, Llulia, and Chiloas and Pataz.

TRUXILLO, a department in the above intendancy,

which is bounded on the west by the Pacific  
Ocean, on the south by the river Sana, on the  
north by the province of Caxamarca, and on the  
east by that of Guamachuco. It extends twenty-  
leagues along the coast and as many into the  
interior.

TRUXILLO, the chief town of the above depart-  
ment and province, pleasantly situated, and sur-  
rounded with gardens, groves, and delightful walks.  
It was founded in 1535, by Pizarro, on the banks  
of a small river, at the distance of half a league  
from the sea. The houses, chiefly of brick, have  
a very neat appearance. An intendant, and the  
bishop of Truxillo, reside here. The inhabitants  
amount to 5800, and consisted very lately of  
rich Spaniards, some Indians, mestizoes, and  
mulattoes. Truxillo is surrounded with a low  
brick wall, flanked by fifteen bastions ; and car-  
ries on its commerce by means of its port of  
Guanchaco, which is about two leagues to the  
northward, and the only good harbour on the  
coast from Callao to Tumbes. 480 miles south  
of Quito, and 268 N. N. W. of Lima.

TRY, *v. a. & v. n.* Saxon *tryppian* ; Fr. *trier* ;  
Swed. *trygga*. To examine ; make experiment  
of ; assay ; examine ; bring to a decision or test ;  
act on as a test ; purify : as a verb neuter, to  
endeavour ; attempt.

Doth not the ear try words, and the mouth taste  
meat ? *Job.*

The trying of your faith worketh patience. *James, i. 3.*

Some among you have beheld me fighting,  
Come try upon yourselves what you have seen me. *Shakspeare.*

The fire seven times tried this ;  
Seven times tried that judgment is,  
Which did never chuse amiss. *Id.*

He first deceased, she for a little tried  
To live without him, liked it not, and died. *Wotton.*

They open to themselves at length the way  
Up hither, under long obedience tried. *Milton.*

Some to far Oasis shall be sold,  
Or try the Lybian heat, or Scythian cold. *Dryden.*  
I'll try it out, and give no quarter. *Id. Don Sebastian.*

To ease her cares, the force of sleep she tries !  
Still wakes her mind, though slumbers seal her eyes. *Swift.*

TRYPHIODORUS, an ancient Greek poet,  
who lived between the reigns of Severus and  
Anastasius. None of his numerous writings have  
come down to us but an epic poem, of which  
there are several editions, and Italian and English  
versions.

TSCHERKASK, the capital of the Don Cos-  
sacks, in the south-east of European Russia.  
The town now called Old Tscherkask is situated  
on the right bank of the Aksai, a branch of the  
Don, and is surrounded on every side by marshes ;  
a site probably chosen on account of the diffi-  
culty of approaching it. It is overflowed every  
year, from the beginning of April to the end of  
June, the ground floors of the houses being un-  
der water during all the time. This drawback  
led to a removal, after the peace of 1814, of the  
capital to New Tscherkask, situated at the con-  
fluence of the Aksai and Turlov, at a distance of



five miles. The streets in the new town are wide and straight; but the houses, merely wooden huts, thinly spread; so that, though the town extends a league and a half, the population amounts at present to only 5000. That of Old Tscherkask, formerly 15,000, is at present reduced to 10,000. The old town has a particular slobode or quarter assigned to its Tartar inhabitants, and is situated forty miles east by north of Azoph, and 250 E. S. E. of Ekaterinoslav.

TSCHUVASCHES, a tribe of Finnish origin, spread over several provinces of Russia, viz. those of Kasan, Simbirsk, Orenbourg, Niznei-Novgorod, and Viatka, in Europe, and Tomsk in Asia. Their number is full 106,000, of whom about 23,000, settled in the government of Kasan, have embraced Christianity and become agriculturists, the rest are wandering Pagans. They are all extremely indolent and dirty, but a simple inoffensive race. In taking an oath, their only form is holding a little bread and salt in their hands to say, 'May these fail me if I lie.'

TSONG-MING, an island near the coast of China, in the Eastern Seas, near the mouth of the Yang-tse-kiang River, about fifty miles in length, and fifteen in breadth. It was formerly a place of banishment for criminals, who were joined by some poor Chinese families, and they divided the lands amongst them. The country is divided by an infinite number of canals with high banks. The island contains only one city of the third rank, surrounded with high walls, and a ditch.

TUAM, a large and well built town of Ireland, in Galway, consisting of four main streets, which diverge nearly at right angles from the market-house. Here is also an elegant mall, and a spacious archiepiscopal palace. The cathedral, situated at the western extremity of the town, is a neat but not very extensive edifice, adorned with a lofty spire and steeple. The linen manufacture is extending here. An abbey is said to have been founded at Tuam in 487. Here are other religious edifices. But Tuam, with all its churches, was consumed by fire in 1244. It was a borough previous to the union with Great Britain, and sent two members to the Irish parliament. Seventeen miles N. N. E. of Galway, and ninety-three south-west of Dublin.

TUARICK, a numerous tribe of Central Africa, occupying all the territory to the west and south of Soudan, as far as the country on the Niger. They are described by captain Lyon as the finest and tallest race of men he ever saw; having an imposing air of pride and independence; and their skin generally white, except in those parts that are exposed to the climate. The most remarkable feature in their costume consists in a piece of glazed cotton cloth, generally blue, with which they cover their faces as high as the eyes, and which hangs down on the breast below the chin. The beard is generally clipped very close. They wear blue turbans, surmounted by high red caps; while the body is generally covered with a loose shirt of blue cotton. The merchants add to their dress a kaftan or cloak of bright red cloth or very gay silk and cotton striped, which they procure from the Tripoline traders. They wield the sword, dagger, and spear, very dexterously.

They generally also carry a long gun, and are considered sure marksmen. They are also good horsemen. It was amongst this tribe that major Laing was so desperately wounded, just before he reached Tombuctoo.

TUB, *n. s.* Belgic *tubbe*, *tobbe*. A large open vessel of wood.

Season the slaves

For tubs and baths, bring down the rose-cheeked youth

To the 'tub-fast, and the diet. *Shakspeare. Timon.*

In the East Indies, if you set a *tub* of water open in a room where cloves are kept, it will be drawn dry in twenty-four hours. *Bacon's Natural History.*

They fetch their precepts from the Cynick tub.

*Milton.*

Skillful coopers hoop their *tubs*,  
With Lydian and with Phrygian dubs. *Hudibras.*

TUBE, *n. s.* Fr. *tube*; Lat. *tubus*. A pipe; siphon; long hollow body.

A spot like which astronomer

Through his glazed optick tube yet never saw.

*Milton.*

There bellowing engines with their fiery tubes  
Dispersed æthereal forms, and down they fell.

*Roscommon.*

This bears up part of it out at the surface of the earth, the rest through the tubes and vessels of the vegetables thereon. *Woodward's Natural History.*

TUBERCLE, *n. s.* Fr. *tubercule*; Lat. *tuberculum*. A small swelling or excrescence on the body; a pimple.

By what degrees the tubercles arise,

How slow, or quick, they ripen into size. *Sewell.*

A consumption of the lungs, without an ulceration, arrives through a schirrosity, or a crude tubercle. *Harvey.*

TUBERCLES, among physicians, denote little tumors which suppurate and discharge pus; and are often found in the lungs, especially of consumptive persons. See MEDICINE, Index.

TUBEROSE, *n. s.* From TUBEROUS, see below. A flower.

The stalks of *tuberoses* run up four foot high, more or less; the common way of planting them is in pots in March, in good earth. *Mortimer's Husbandry.*

Eternal spring, with smiling verdure, here  
Warms the mild air, and crowns the youthful year;  
The *tuberoses* ever breathes, and violets blow.

*Garth.*

TUBEROUS, *adj.* Fr. *tubereux*; Lat. *tuber.* Having prominent knots or excrescences.

Parts of *tuberosus hæmatite* shew several varieties in the crusts, striature, and constitution of the body. *Woodward.*

TUBULE, *n. s.* } Lat. *tubulus*. A small  
TUBULAR, *adj.* } pipe, or fistular body: the  
TUBULATED. } adjective corresponding.  
He hath a *tubular* or pipe-like snout, resembling that of the hippocampus, or horse-fish.

*Grew's Musæum.*

As the ludus Helmontii, and the other nodules, have in them sea-shells that were incorporated with them during the time of their formation at the deluge, so these stones had then incorporated with them testaceous *tubules*, related to the siphunculi, or rather the vermiculi marini. *Woodward on Fossils.*

The teeth of vipers are *tubulated* for the conveyance of the poison into the wound they make; but their hollowiness doth not reach to the top of the tooth. *Derham's Physico-Theology*

TUCK, *n. s., v. a., & v. n.* } *Fr. estoc; Ital.*

TUCKER, *n. s.* } *stocco; Welsh*  
*tweca, a knife. A long narrow sword; long*  
*narrow fold or net: to gather into a narrow com-*  
*pass; enclose: and as a verb neuter contract:*  
*tucker is a kind of tuck worn on the bosom.*

If he by chance escape your venom'd tuck,  
 Our purpose may hold there. *Shakespeare. Hamlet.*

The tuck is narrower meshed, and therefore scarce  
 lawful with a long bunt in the midst. *Garew.*

These being primed, with force he laboured  
 To free 's sword from retentive scabbard;  
 And after many a painful pluck,  
 From rusty durance he bailed tuck. *Hudibras.*

Make his bed after different fashions, that he may  
 not feel every little change, who is not to have his  
 maid always to lay all things in print, and tuck him  
 in warm. *Locke on Education.*

The following age of females first tuck'd up their  
 garments to the elbows, and exposed their arms to  
 the air. *Addison.*

A female ornament by some called a tucker, and  
 by others the neck-piece, being a slip of fine linen or  
 muslin, used to run in a small kind of ruffle round  
 the uppermost verge of the stays. *Id. Guardian.*

Dick adept! tuck back thy hair,  
 And I will pour into thy ear. *Prior.*

An ulcer discharging a nasty thin ichor, the edges  
 tuck in, and growing skinned and hard, give it the  
 name of a callous ulcer. *Sharp's Surgery.*

TUCKER (Abraham), esq., published 9 vols.  
 on Metaphysics, under the assumed name of  
 Search. He died at his estate of Dorking, in  
 Surrey, in 1775.

TUCKER (Josiah), D. D., a celebrated English  
 divine, born at Laugharne, in Caermarthenshire,  
 in 1711; and educated at St. John's College,  
 Oxford, where he graduated in 1759. He be-  
 came rector of St. Stephen's in Bristol, and pre-  
 bendary of the cathedral. In 1768 he was made  
 dean. He was an able writer on political, com-  
 mercial, and theological subjects. His chief work  
 is his treatise on Civil Government against Locke,  
 8vo., 1781. He died in 1799.

TUCK'ETSONANCE, *n. s.* From tuck. *Ital.*  
*'occo, a musical key. The sound of the tucket.*  
*An ancient instrument of music.*

Let the trumpets sound  
 The tucketsonance and the note to mount.  
*Shakespeare. Henry V.*

TUCUMAN, a province and government of  
 Buenos Ayres, bounded on the north-east by  
 Chichas and Lipés in Charcas; north-west and  
 west by Atacama; west and south-west by Cuyo  
 or Cujó; south-east by the Pampas or territories  
 inhabited by the Aucaes, Huarcos, or Pampas,  
 Pihuenches, Puelches, Uncos, and other uncon-  
 quered tribes which wander over the plains and  
 mountains adjacent to Chili; on the south-east  
 it has the jurisdiction of Sante Fe, in Buenos  
 Ayres; and on the east it has the uncultivated  
 Llanos de Manso, and the country of Chacos or  
 Chaco Gualamba. Its extent is from lat. 22° to  
 33° 10' S.; its length 370 leagues; and its  
 breadth 190 leagues from east to west. The  
 climate is hot in those parts farthest from the  
 main chain and branches of the Andes; but in  
 general the seasons are regular, and the soil pro-  
 lific and good.

The Spaniards conquered this country after  
 subjugating Peru; and Diego de Roxas was the  
 first discoverer in 1543; but it was not subdued  
 till the president Pedro de la Gasca sent Juan  
 Nunez de Padro, in 1549, to establish settlements  
 in Tucma or Tucuman. The inhabitants prov-  
 ing of a mild and peaceable nature, the expedi-  
 tion was unattended with any bloodshed, and  
 four cities were immediately founded, namely,  
 Santiago del Estero, San Miguel del Tucuman,  
 Nuestra Senora de Talavera, and Cordova de la  
 Nueva Andalucia; but these being found insuf-  
 ficient in so large a territory, Rioja, Santa, and  
 Jujui or Xuxui, were soon afterwards added.

TUCUMAN, or SAN MIGUEL DE TUCUMAN, the  
 capital of the above province, is situated in a  
 pleasant plain, though much in want of water.  
 Here is a Jesuit's college, a cathedral, and a con-  
 vent of Franciscans. It has a trade in mules;  
 but its principal traffic consists in oxen for the tra-  
 velling waggons, and in the waggons themselves.  
 There are also some unworked silver mines in its  
 neighbourhood. San Miguel is the see of a bi-  
 shop who resides at Cordova. The bishopric is  
 that of Tucuman, and was erected in 1570. It  
 was founded in 1685, but placed in a different  
 situation from its present, on account of an in-  
 undation which swept away the church and  
 houses. 1170 miles in a direct line from Lima,  
 462 south of La Plata, and 200 east of Copiapo.

TUDELA, a town in Navarre, Spain, at the  
 confluence of the Queilos and Ebro. It is the  
 second city in the province, and a bishop's see,  
 having a fine bridge and most beautiful walks;  
 but the interior is spoiled by the narrowness of  
 the streets. The adjacent country is fertile in  
 corn, fruit, hemp, and pasture: and the canal  
 of Arragon begins about two miles from this  
 place. Tudela was in 1314 the scene of a defeat  
 of the inhabitants of Navarre by the Castilians,  
 and in 1808 of a more serious overthrow of the  
 Spaniards by the French. Population 7300.  
 Forty-five miles south of Pampeluna.

TVER, one of the central governments of Eu-  
 ropean Russia, between those of Moscow and  
 Novgorod, and extending from 56° to 58° 40'  
 N. lat., and from 32° 20' to 39° of E. long. It  
 has a superficial extent of 24,100 square miles,  
 with about 1,000,000 inhabitants, partly of Rus-  
 sian, and partly of Finnish descent. The rivers  
 are constantly frozen over from the beginning of  
 December to the end of March. These are  
 pretty numerous: the principal are the Wolga,  
 the Dwina, the Msta, the Tvertza, the Mologa,  
 and the Meduevitz, none of which are of large  
 size in this government. The chief lakes are the  
 Seliger, the Wolga, and the Dvinez. Besides,  
 there is a large canal for the internal communi-  
 cation called Vischnai-Volotschok.

TVER, a city of European Russia, the capital  
 of a government, and an archbishop's see, stands  
 on the great road from St. Petersburg to Moscow,  
 at the confluence of the Tvertza, the Wolga, and  
 the Tmaka, which divide the town into four parts,  
 united by three bridges, the one over the Wolga  
 being of boats, that it may be removed during  
 winter. Tver has been repeatedly ravaged by  
 fire, particularly in 1763, when only a few houses  
 were saved. The principal streets are broad



and perfectly straight; they all proceed from an open space in the centre of the town in the form of an octagon. The houses of the principal streets are of brick stuccoed white, and have an elegant appearance. There are also several handsome squarcs. The chief public buildings are an old Gothic cathedral, a palace, the courts of justice, the government-offices, and the hospital. The manufactures comprise linen, wax, leather, candles, and hardware. The population of the town is about 20,000. Its origin is traced back to 1240; its annexation to the Russian dominions took place in 1490. 100 miles N.N.W. of Moscow, and 300 south-east of St. Petersburg.

**TUFA**, a stone consisting of volcanic ashes concreted together with various other species of stone. It is of various colors, blackish gray, bluish gray, and yellow; every color having a different mixture and solidity; but all of them have the bad quality of mouldering down on long exposure to the weather. The yellow kind resists the air less than any other.

**TUFT**, *n. s.* & *v. a.* } Fr. *tuffe*; Swed. *taft*.  
**TUFT'ED**, *adj.* } A bunch of threads, rib-  
**TUFTY**. } bands, leaves, &c. joined  
together; a cluster: to tuft is to adorn with a tuft: the adjective corresponding.

Going a little aside into the wood, where many times before she delighted to walk, her eyes were saluted with a *tuft* of trees so close set together, as with the shade the moon gave through it, it might breed a fearful kind of devotion to look upon it.

My house is at the *tuft* of olives hard by.

Upon sweet brier, a fine *tuft*, or brush of moss of divers colours, you shall ever find full of white worms.

An island lie  
Girt with the unmeasured sea: and is so nie,  
That in the midst I saw the smoke arise,  
Through *tufts* of trees.

With high woods the hills were crowned;  
With *tufts* the valleys, and each fountain side  
With borders 'long the rivers.

Towers and battlements it sees,  
Bosomed high in *tufted* trees,  
Where perhaps some beauty lies,  
The cynosure of neighbouring eyes.

It is notorious for its goatish smell, and *tufts* not unlike the beard of that animal.

A *tuft* of daisies on a flowery lea.  
The male among birds often appears in a crest,  
comb, a *tuft* of feathers, or a natural little plume,  
erected like a pinnacle on the top of the head.

Sit beneath the shade  
Of solemn oaks, that *tuft* the swelling mounts,  
Thrown graceful round.

'Midst the desert fruitful fields arise,  
That, crowned with *tufted* trees and springing corn,  
Like verdant isles the sable waste adorn.

**TUFTAFFETY**, *n. s.* From *tufted* and *taffety*. A villous kind of silk.

His cloaths were strange, though coarse; and  
black, though bare:  
Sleeveless his jerkin was, and it had been  
Velvet; but it was now, so much ground was seen,  
Become *tuffaffety*.

**TUG**, *v. a., v. n., & n. s.* Sax. *teigan, teogan*. To pull with continued strength or effort: to draw; pluck: as a verb neuter, contend; struggle: a pull of this kind.

The meaner sort will *tug* lustily at one oar. *Sandys*.

His face is black and full of blood,  
His hands abroad displayed, as one that grasps  
And *tugged* for life. *Shakspeare. Henry VI.*

Priest, beware thy beard;  
I mean to *tug* it, and to cuff you soundly. *Id.*

Go now with some daring drug,  
Bait thy disease, and while they *tug*,

Thou, to maintain the cruel strife,  
Send the dear treasure of thy life. *Crashaw.*

No more *tug* one another thus, nor moil yourselves; receive

Prise equal; conquers crown ye both: the lists to others leave. *Chapman's Iliad.*

These two massy pillars  
With horrible confusion to and fro  
He *tugged*, he shook, till down they came, and drew  
Upon the heads of all that sat beneath  
The whole roof after them, with burst of thunder.

Take pains the genuine meaning to explore,  
There sweat, there strain, *tug* the laborious oar.

Downward by the feet he drew  
The trembling dastard: at the *tug* he falls,  
Vast ruins come along, rent from the smoking walls.

We have been *tugging* a great while against the stream, and have almost weathered our point; a stretch or two more will do the work.

They long wrestled and strenuously *tugged* for their liberty, with a no less magnanimous than constant pertinacy.

**TUG**, Fr. a Turkish term for tail; a sort of standard called so by the Turks. It consists of a horse's tail, which is fixed to a long pole, or half pike, by means of a gold button. The origin of this standard is curious. It is said that the Christians having given battle to the Turks, the latter were broken, and in the midst of their confusion lost their grand standard. The Turkish general, being extremely agitated at the untoward circumstances which happened, most especially by the loss of the great standard, cut off a horse's tail with a sabre, fixed it to a half pike, and, holding it in his hand, rode furiously towards the fugitives, and exclaimed, Here is the great standard! let those who love me follow me into action! This produced the desired effect. The Turks rallied with redoubled courage, rushed into the thickest of the enemy, and not only gained the victory, but recovered their standard.

Other writers assert that 6000 Turks, having been taken prisoners during a general engagement, contrived to escape from their guard, or escort, and afterwards fought so gallantly that they gained another battle; that, in order to recognize one another, they cut off a horse's tail which they carried as a standard; that when they joined the Ottoman army they still made use of the tug or tail; that the Turks, in consequence of the victory which was obtained under this new standard, looked upon it as a happy omen: and that since that period they have always fought under it, as their banner and the signal of success. Whatever may have been the origin, it is certain that when the grand seignior

takes the field in person, seven of these tails are always carried before him; and, when he is in camp, they are planted in front of his tent.

The grand vizier is entitled to three of these tails. The three principal bashaws of the empire (viz. those of Bagdad, Grand Cairo, and Buda), have the grand signior's permission to use this mark of distinction throughout the whole extent of their jurisdiction. Those bashaws that are not viziers have the privilege of having two tails. The Beys, who are subordinate to the bashaws, have only one.

In the bas-relievo which is under the tombstone of John Cassimir, king of Poland, in the abbey church of St. German des prés de Paris, that monarch is represented at the head of his cavalry, with a horse's tail, or tug, for his standard.

TUISCO, or TUISTON, a celebrated hero and god of the ancient Germans, the Mars or god of war among the Saxons, from whom our Tuesday is named.

TUITION, *n. s.* Lat. *tuitio*, from *tueor*. Guardianship; superintendent care; care of a guardian or tutor.

A folly for a man of wisdom to put himself under the tuition of a beast. *Sidney.*

They forcibly endeavour to cast the churches, under my care and tuition, into the moulds they have fashioned to their designs. *King Charles.*

If government depends upon religion, this shews the pestilential design of those that attempt to disjoin the civil and ecclesiastical interests, setting the latter wholly out of the tuition of the former.

*South's Sermons.*

When so much true life is put into them, freely talk with them about what most delights them, that they may perceive that those under whose tuition they are, are not enemies to their satisfaction.

*Locke.*

TULA, a government or province in the interior of Russia, to the south of Moscow. It extends from 52° to 55° of N. lat., and has a surface of nearly 12,000 square miles, with a population of 950,000. Like others of the provinces of European Russia, it may be called a great undulating plain. The climate is healthy, the soil in general of a middling quality.

TULA, a large town of European Russia, the capital of a government, is situated at the confluence of the Tulpa and the Upa. This place, the population of which now approaches to 40,000, is called the Sheffield of Russia, and is one of the few towns in the empire that can be termed a place of activity. Here is a cannon foundry, a manufacture of arms for government, viz. muskets, bayonets, swords, &c.; and in the town there are about 600 workshops of smiths and others, for making fire arms and cutlery for private use. The ore is supplied in abundance from the vicinity. Tula was founded in the beginning of the sixteenth century, but the mines were not discovered till long afterwards; and it was not till 1717 that the government manufacture was established by Peter I. This place was made a bishop's see in 1799. The river Don has its rise in the lake of Ivanou, at a short distance. 115 miles south of Moscow, and 487 south-east of St. Petersburg.

TULDEN (Theodore Van), a celebrated Dutch painter, born at Bois-le-Duc, in 1607. He painted historical and ludicrous subjects. He died in 1676.

TULIP, *n. s.* Fr. *tulipe*; Lat. *tulipa*. A flower.

The tulip opens with the rising, and shuts with the setting sun. *Hakewill.*

Why tulips of one colour produce some of another, and, running through all, still escape a blue.

*Browne's Vulgar Errors.*

TULIP TREE. See LIRIODENDRON.

TULIPA, the tulip, in botany (see BOTANY, Index), a genus of plants belonging to the class of hexandria, and order of monogynia; and in the natural system ranging under the tenth order, coronariæ. The corolla is hexapetalous and campanulated, and there is no style. The species of this genus are four, viz. 1. *T. biflora*, the double-flowered tulip. 2. *T. breyniana*, the Cape tulip, a native of the Cape of Good Hope. 3. *T. gesneriana*, Gesner's Turkey tulip of Capadocia, or common garden tulip, having a large, oblong, tunicated, solid, bulbous root, covered with a brown skin, sending up long oval, spear-shaped leaves; an upright round stalk, from half a foot to a yard high, garnished with a few leaves, and its top crowned with a large bell-shaped erect hexapetalous flower, of almost all colors and variegations in the different varieties. It is a native of the Levant. The principal part should be planted in autumn, and the rest towards Christmas, and in January or February. Of this species the varieties may be divided into two principal classes, viz. 1. Early or dwarf spring tulips (*præcocea*), 2. Late-flowering tall tulips (*serotina*). 4. *T. sylvestris*, or wild European tulip, or Italian yellow tulip, a native of the south of Europe, has an oblong bulbous root, sending up long narrow spear-shaped leaves; and a slender stalk, supporting at top a small yellow flower, nodding on one side, having acute petals.

TULIPOMANIA (from *tulipa*, and *mania*, madness), the name given to a kind of gambling traffic in tulip roots, which prevailed in Holland and the Netherlands during part of the seventeenth century. It was carried on to such an enormous extent that one root has been sold for 4600 florins, together with a new carriage, two gray horses, and a complete harness. The tulips, however, were seldom delivered. A nobleman bespoke of a merchant a tulip root, to be delivered in six months, at the price of 1000 florins. During these six months the price of that species of tulip must have risen or fallen, or remained as it was. But, instead of demanding his tulip then, he paid or received the difference of price. This singular species of gaming could, from its nature, only go to a limited extent. The value of tulip roots began to fall. The sellers were then anxious to deliver the roots in natura, but the buyers would not receive them. The consequence was that tulips very speedily fell to their intrinsic value, and the gambling was at an end.

TULL (Jethro), an Oxfordshire gentleman, who projected a new method of culture to raise repeated crops of wheat from the same land without the necessity of manure; the principles



of which he published in *A Treatise on Horse-hoeing Husbandry*.

**TULLE**, a considerable town in the south-west of France, capital of the department of the Correze, stands at the confluence of the Correze and Solane, partly on the declivity, and partly at the foot of a mountain, surrounded by heights and precipices. It has crooked and angular streets, and no public buildings except its churches and hospital. Its population of 9000 is employed partly in the manufacture of woollen stuffs and paper, partly in preparing for sale brandy, chocolate, and liquors. It is the seat of the different branches of the departmental administration, and the see of a bishop. Forty-two miles south-east of Limoges.

**TUMBLE**, *v. n., v. a., &* Fr. *tomber*; Belg.

**TUM'BLER**, *n. s.* [*n. s.*] *tommelen*; Italian

**TUM'BREL**. } *tombolare*. To fall; come down violently; fall in great quantities; roll about: to turn over; throw down or about: a fall: a tumbler is one who exhibits feats of tumbling with the body: tumbrel, a dung cart.

I saw at the bottom of one tree a gentleman bound with many garters hand and foot, so as well he might *tumble* and toss. *Sidney.*

Glo'ster stumbled, and in falling struck me into the *tumbling* billows of the main.

*Shakespeare. Richard III.*

Though the treasure

Of nature's germins *tumble* all together, Answer me. *Shakespeare.*

When it came to the ears of Maximilian, and *tumbling* it over and over in his thoughts, that he should at one blow be defeated of the marriage of his daughter and his own, he lost all patience.

*Bacon's Henry VII.*

What strange agility and activeness do common *tumblers* and dancers on the rope attain to by exercise! *Wilkins.*

King Lycurgus, while he fought in vain His friends to free, was *tumbled* on the plain. *Dryden.*

My corps is in a *tumbril* laid, among The filth and ordure, and inclosed with dung; That cart arrest, and raise a common cry, For sacred hunger of my gold I die. *Id.*

A country fellow got an unlucky *tumble* from a tree: why, says a passenger, I could have taught you a way to climb, and never hurt yourself with a fall. *L'Estrange.*

If a greater force than his holds him fast, or *tumbles* him down, he is no longer free. *Locke.*

He sometimes rode in an open *tumbril*. *Taitler.* Reform our sense, and teach the men 'obey; They'll leave their *tumbling*, if you lead the way. *Rowe.*

Sisyphus lifts his stone up the hill; which carried to the top, it immediately *tumbles* to the bottom. *Addison.*

To stand or walk, to rise or *tumble*, As matter and as motion jumble. *Prior.*

They *tumbled* all their little quivers o'er, To chuse propitious shafts. *Id.*

A man by *tumbling* his thoughts, and forming them into expressions, gives them a new fermentation, which works them into a finer body. *Collier on Pride.*

What shall I do with this beastly *tumbril*? go lie down and sleep, you sot. *Congreve.*

Nic bounced up with a spring equal to that of the nimblest *tumblers* or rope-dancers. *Arbutnot.*

Never by *tumbler* through the hoops was shown Such skill in passing all, and touching none. *Pope.*

**TUMBLE-DUNG**, in entomology. See *SCABAEUS*.

**TUMBREL** is also a kind of carriage with two wheels, used in artillery to carry the tools of the pioneers, &c., or the money of an army.

**TUM'EFY**, *v. a.* } Lat. *tumescio*. To **TUMEFAC'TION**, *n. s.* } swell; to make to swell: swelling.

A consumption actually begun is, when some parts of the lungs are knotted and *tumefied*. *Blackmore.*

A fleshy excrescence, exceeding hard and *tumefied*, supposed to demand extirpation. *Sharp's Surgery.*

I applied three small caustics triangular about the *tumefied* joint. *Wiseman's Surgery.*

The common signs and effects of weak fibres are paleness, a weak pulse, *tumefactions* in the whole body. *Arbutnot.*

**TUMID**, *adj.* } Latin *tumidus*. Swell- **TUMOROUS**, } ing; puffed up; protuber- **TUMOR**, *n. s.* } ant; pompous: this is also the meaning of *tumid*: tumor (noun substantive) is a morbid swelling; affected pomp.

According to their subject, these stiles vary: for that which is high and lofty, declaring excellent matter, becomes vast and *tumorous*, speaking of petty and inferior things. *Ben Jonson.*

His limbs were rather sturdy than dainty, sublime and almost *tumorous* in his looks and gestures. *Wotton.*

His stile was rich of phrase, but seldom in bold metaphors; and so far from the *tumour*, that it rather wants a little elevation. *Id.*

So high as heaved the *tumid* hills, so low Down sunk a hollow bottom broad and deep, Capacious bed of waters. *Milton.*

Though such expressions may seem *tumid* and aspiring; yet cannot I scruple to use seeming hyperboles in mentioning felicities, which make the highest hyperboles but seeming ones. *Boyle.*

It is not the power of *tumour* and bold looks upon the passions of the multitude. *L'Estrange.*

Having dissected this swelling vice, and seen what it is that feeds the *tumour*, if the disease be pride, the abating that is the most natural remedy. *Government of the Tongue.*

*Tumour* is a disease, in which the parts recede from their natural state by an undue increase of their bigness. *Wiseman.*

**TUMULATE**, *v. n.* Latin *tumulo*. To swell. This seems to be the sense here, but I suspect the word to be wrong.—Johnson.

Urinous spirits, or volatile alkalies, are such enemies to acid, that as soon as they are put together, they *tumulate* and grow hot, and continue to fight till they have disarmed or mortified each other. *Boyle.*

**TUMULT**, *n. s.* } Fr. *tumulte*; Lat. **TUMULTUARINESS**, } *tumultus*. A promiscuous commotion: **TUMULTUARY**, *adj.* } **TUMULTUATION**, *n. s.* } stir: violence; a **TUMULTUOUS**, *adj.* } multitude in commotion: **TUMULTUOUSLY**, *adv.* } **TUMULTUATION**, *n. s.* } tion: tumultuariness is violence; turbulence: tumultuary, disorderly; promiscuous: tumultuation, agitation; confusion: the adjective and adverb correspond with tumult.

The winds began to speak louder, and, as in a *tumultuous* kingdom, to think themselves the fittest instruments of commandment. *Sidney.*

Many civil broils, and *tumultuous* rebellions, they fairly overcame, by reason of the continual presence of their king, whose only person oftentimes contains the unruly people from a thousand evil occasions.

*Spenser's State of Ireland.*

Furiously running in upon him, with *tumultuous* speech, he violently rought from his head his rich cap of sables.

*Knolles.*

What stir is this? what *tumult* in the heavens? Where cometh this alarum and this noise?

*Shakspeare.*

Nought rests for me in this *tumultuous* strife, But to make open proclamation.

*Id.*

It was done by edict, not *tumultuously*; the sword was not put into the people's hand.

*Bacon's Holy War.*

My followers were at that time no way proportionable to hazard a *tumultuary* conflict.

*King Charles.*

The *tumultuosity* of the people, or the factiousness of presbyters, gave occasion to invent new models.

*Id.*

The strong rebuff of some *tumultuous* cloud Hurried him aloft.

*Milton.*

It is likely that the divided atoms should keep the same ranks in such a variety of *tumultuary* agitations in that liquid medium?

*Glanville's Scopsis.*

That in the sound the contiguous air receives many strokes from the particles of the liquor, seems probable by the sudden and eager *tumultuation* of its parts.

*Boyle.*

A *tumult* is improved into a rebellion, and a government overturned by it.

*L'Estrange.*

This piece of poetry, what can be nobler than the idea it gives us of the Supreme Being thus raising a *tumult* among the elements, and recovering them out of their confusion, thus troubling and becalming nature.

*Addison's Spectator.*

The vital blood, that had forsook my heart, Returns again in such *tumultuous* tides, It quite overcomes me.

*Id. Cato.*

Men who live without religion, live always in a *tumultuary* and restless state.

*Atterbury.*

With ireful taunts each other they oppose, Till in loud *tumult* all the Greeks arose.

*Pope.*

TUN, *n. s. & v. a.* } Saxon *tunne*; Belgic  
TUN'AGE, *n. s.* } *tonne*; French *tonne*, *ton-*  
TUNN'ED, *adj.* } *neau*. A large cask; large quantity; a drunkard; a large weight; large space in a ship: to tun is to put in casks: *tun-*  
nage is the contents of a vessel measured in tuns.

I have ever followed thee with hate,  
Drawn *tuns* of blood out of thy country's breast.

*Shakspeare.*

If in the must, or wort, while it worketh, before it be *tunned*, the burrage stay a time, and be often changed with fresh, it will make a sovereign drink for melancholy.

*Bacon.*

So fenced about with rocks and lets, that, without knowledge of the passages, a boat of ten *tuns* cannot be brought into the haven.

*Heylyn.*

As when a spark  
Lights on a heap of powder, laid  
Fit for the *tun*, some magazine to store  
Against a rumoured war.

*Milton.*

Here's a *tun* of midnight work to come,  
Og from a treason-tavern rolling home.

*Dryden.*

A *tun* about was every pillar there;  
A polished mirror shone not half so clear.

*Id.*

The consideration of the riches of the ancients leads to that of their trade, and to inquire into the bulk and *tunnage* of their shipping.

*Arbushnot.*

TUN, a large vessel or cask, of an oblong form, biggest in the middle, and diminishing towards

its two ends, girt about with hoops, and used for stowing several kinds of merchandise for convenience of carriage, as brandy, oil, sugar, skins, hats, &c.

TUN is also the name of a measure. A tun of wine is four hogsheads; of timber a square of forty solid feet; and of coals twenty hundred-weight.

TUN, or TON, is also a certain weight whereby the burden of ships, &c., are estimated.

TUNBRIDGE, a market-town of Kent in a branch of the Medway, five miles and a half S. S. E. from Seven Oaks, and thirty south-east by south from London. Tunbridge consists chiefly of one long street. The town is now in a flourishing state, and once returned members to parliament. The church is a handsome modern structure. The ruins of its former magnificent castle, the scene of many events recorded in British history, are still to be seen. Tunbridge is famous for its grammar school, founded by Sir Andrew Judd, lord mayor of London, in 1551. Many of the masters of this seminary have been distinguished; it is governed by three constables; one for the town, and two others for the hamlets of Southborough and Helden, which is a part of the town. Markets on Friday, and on the first Tuesday in every month for cattle. Fairs, Ash-Wednesday and July 5th.

TUNBRIDGE-WELLS, a town and chapelry, or rather a series of scattered villages, situate in the parishes of Speldhurst, Tunbridge, and Frant, in the hundred of Washlingstone, lathe of Aylesford, Kent, six miles south of Tunbridge, and thirty-six from London. It may be divided into four parts; viz. Mount-Ephraim, Mount-Pleasant, Mount-Sion, and the Wells, and is nearly two miles in length by one in breadth: it is daily growing into reputation and respectability. Mount Ephraim was once the most fashionable quarter, and had its assembly rooms, tavern, &c., but it is now chiefly occupied as lodging-houses. The part called the Wells is the centre of business and amusement, as it is here the springs, the library, the upper and lower parades, the theatre, the orchestra, the chapels, and the market-place, are situate. The upper parade, being the principal one, is paved with Purbeck stone; from it the lower parade is divided by a range of palliades. A portico, supported by wooden Tuscan pillars, runs the whole length of the principal walk; adjoining the chapel is a large and commodious charity-school for boys and girls, on the Madras system, and there are chapels for various classes of dissenters. The principal trade here, like that of Spa in Germany, is in the manufacture and sale of toys, made of cherry-tree, sycamore, &c.; and the Tunbridge turnery-ware finds a considerable sale in most parts of the kingdom. The celebrated springs of Tunbridge were first discovered in 1606 by Dudley, Lord North, who had retired into the neighbourhood in the last stage of a consumption, and having been perfectly restored to health, by the use of the waters, the place acquired a celebrity which has ever since been gradually increasing. The new bath house is a handsome edifice, and the water supplied extremely clear; the season begins in April and ends in November.



**TUNE**, *n. s., v. a., &c.* Dutch *toon*; Swed. *ton*; Italian *tuono*; Fr. *tonc*; Latin *tonus*. A diversity of notes put together; sound; note; harmony; order: to put into tune; sing harmoniously; put into order: to form one sound to another; utter harmony: the adjectives and tuner correspond.

When in hand my *tuneless* harp I take  
Then do I more augment my foes despight.

*Spenser.*

A cry more *tuneable*  
Was never halloo'd to, nor cheered with horn.

*Shakespeare.*

The pox of such antick, lisping, affected phantasies, these new *turners* of accents.

*Id.*

Came he to sing a raven's note,  
Whose dismal *tune* bereft my vital powers?

*Id.*

Such a noise arose

As the shrouds make at sea in a stiff tempest,  
As loud, and to as many tunes.

*Id.*

Distressed Lear, in his better *tune*, remembers  
what we are come about.

*Id.*

*Tunes* and airs have in themselves some affinity with the affections: as merry *tunes*, doleful *tunes*, solemn *tunes*, *tunes* inclining men's minds to pity, warlike *tunes*; so that *tunes* have a predisposition to the motion of the spirits.

*Bacon.*

The winds were hushed, no leaf so small  
At all was seen to stir;

Whilst *tuning* to the water's fall,  
The small birds sang to her.

*Drayton's Cynthia.*

A continual parliament I thought would but keep  
the common weal in *tune*, by preserving laws in their  
due execution and vigour.

*King Charles.*

Swallow, what dost thou  
With thy *tuneless* serenade?

*Cowley.*

Hard are the ways of truth, and rough to walk;  
Smooth on the tongue discoursed, pleasing to the  
ear,

And *tunable* as sylvan pipe or song.

*Milton.*

Fountains, and ye that warble as ye flow,  
Melodious murmurs, warbling *tune* his praise.

*Id.*

All sounds on fret or stop

Tempered soft *tings* intermixed with voice.

*Id.*

I saw a pleasant grove,

With chant of *tuneful* birds resounding love.

*Id.*

All *tunable* sounds, whereof the human voice is one,  
are made by a regular vibration of the sonorous body  
and undulation of the air, proportionable to the  
acuteness or gravity of the tone.

*Holder.*

That sweet song you sung one starry night,  
The *tune* I still retain, but not the words.

*Dryden.*

Earth smiles with flowers renewing, laughs the  
sky,

And birds to lays of love their *tuneful* notes apply.

*Id.*

A child will learn three times as much when he is  
in *tune*, as he will with double the time and pains,  
when he goes awkwardly, or is dragged unwillingly  
to it.

*Locke.*

Several lines in Virgil are not altogether *tunable* to  
a modern ear.

*Garth's Preface to Ovid.*

For thy own glory sing our sov'reign's praise,  
God of verses and of days!

Let all thy *tuneful* sons adorn

Their lasting works with William's name.

*Prior.*

The disposition in the fiddle to play *tunes*.

*Arbuthnot and Pope.*

Leave such to *tune* their own dull rhymes, and  
know

What's roundly smooth, and languishingly slow.

*Pope.*

Poets themselves must fall, like those they sung,  
Deaf the praised ear, and mute the *tuneful* tongue.

*Id.*

**TUNGSTEN**, one of the metals, discovered and ascertained as distinct from earths, stones, and all other minerals, by the industry of modern chemists. There is a mineral, says Dr. Thomson, found in Sweden of an opaque white color, and great weight, from which last circumstance it got the name of tungsten or ponderous stone. Scheele analysed it in 1781, and found it was composed of lime and a peculiar earthy-like substance, which he called from its properties tungstic acid. Bergman conjectured that the basis of this acid is a metal; and this conjecture was soon after confirmed by the experiments of Messrs. D'Elhuyarts, who obtained the same substance from a mineral of a brownish black color, called by the Germans wolfram, which is sometimes found in tin mines. This mineral they found to contain  $\frac{1}{10}$  of tungstic acid: the rest of it consisted of manganese, iron, and tin. This acid substance they mixed with charcoal powder, and beat violently in a crucible. On opening the crucible, after it had cooled, they found in it a button of metal of a dark brown color, which crumbled to powder between the fingers. On viewing it with a glass they found it to consist of a congeries of metallic globules, some of which were as large as a pin's head. The metal thus obtained is called tungsten. The manner in which it was produced is evident: tungstic acid is composed of oxygen and tungsten; the oxygen combined with the carbon and left the metal in a state of purity. Tungsten, called by the German chemists scheelium, is of a grayish white color, and has a good deal of brilliancy. It is one of the hardest of the metals; for Vauquelin and Hecht could scarcely make any impression upon it with a file. It seems also to be brittle. Its specific gravity, according to the D'Elhuyarts, is 17.6: but this is doubtful, without farther experiments. It requires for fusion a temperature of at least 170° Wedg. It seems to have the property of crystallising on cooling like all the other metals; for the imperfect button procured by Vauquelin contained a great number of small crystals. It is not attracted by the magnet. When heated in an open vessel it gradually absorbs oxygen, and is converted into an oxide. Tungsten is capable of combining with two different proportions of oxygen, and of forming two different oxides, the black and the yellow. The Elhuyarts alone, continues our author, attempted to combine tungsten with other metals. They mixed 100 grains of the metals to be employed with fifty grains of the yellow oxide of tungsten, and a quantity of charcoal, and heated the mixture in a crucible. The result of their experiments is as follows:—1. With gold and platinum the tungsten did not combine. 2. With silver it formed a button of a whitish brown color, something spongy, which with a few strokes of a hammer extended easily, but on continuing them it split in pieces. The button weighed 142 grains. 3. With copper it gave a button of a copperish red, which approached to a dark brown, was spongy, and pretty ductile, and weighed 133 grains. 4. With crude or cast iron, of a white

quality, it gave a perfect button, the fracture of which was compact, and of a whitish brown color; it was hard, harsh, and weighed 137 grains. 5. With lead it formed a button of a dull dark brown, with very little lustre, spongy, very ductile, and splitting into leaves when hammered; it weighed 127 grains. 6. The button formed with tin was of a lighter brown than the last, very spongy, somewhat ductile, and weighed 138 grains. 7. That with antimony was of a dark brown color, shining, something spongy, harsh, and broke in pieces easily; it weighed 108 grains. 8. That of bismuth presented a fracture which, when seen in one light, was of a dark brown color, with the lustre of a metal, and in another appeared like earth without any lustre; but in both cases one could discover an infinity of little holes over the whole mass. This button was pretty hard, harsh, and weighed sixty-eight grains. 9. With manganese it gave a button of a dark bluish brown color and earthy aspect: on examining the internal part of it with a lens, it resembled impure dross of iron; it weighed 107 grains. Phosphorus is capable of combining with tungsten; but none of the properties of the phosphuret have been ascertained.

**TUNGSTENUM** (heavy stone), in mineralogy, was a name given by the Swedes to a mineral which Scheele found to contain a peculiar metal, as he supposed, in the state of an acid united with lime. The same metallic substance was afterwards found by the don D'Elhuyarts united with iron and manganese in wolfram. From the first of these the oxide may be obtained by digesting its powder in thrice its weight of nitric acid; washing the yellow powder that remains, and digesting it in ammonia, by which a portion of it is dissolved. These alternate digestions are to be repeated, and the tungstic oxide precipitated from the ammoniacal solutions by nitric acid. The precipitate is to be washed with water, and exposed to a moderate heat, to expel any ammonia that may adhere to it. Or the mixture may be evaporated to a dry mass, which is to be calcined under a muffle to dissipate the nitrate of ammonia. From wolfram it may be obtained by the same process, after the iron and manganese have been dissolved by muriatic acid.

The Spanish chemists reduced the oxide of tungsten to the metallic state by exposing it, moistened with oil, in a crucible lined with charcoal, to an intense heat. After two hours a piece of metal weighing forty grains, but slightly agglutinated, was found at the bottom of the crucible. Some have attempted its reduction in vain, but Guyton, Ruprecht, and Messrs. Aikin and Allen, have been more successful. The latter gentlemen produced it from the ammoniuret. From 240 grains of this substance, in acicular crystals, exposed for two hours to a powerful wind-furnace in a crucible lined with charcoal, they obtained a slightly cohering mass of roundish grains, about the size of a pin's head, with a very brilliant metallic lustre, and weighing in the whole 161 grains. Tungsten is said to be of a grayish-white or iron color, with considerable brilliancy, very hard and brittle. Its specific gravity don D'Elhuyarts found to be 17·6; Messrs. Aiken and Allen above 17·22.

There are two oxides of tungsten, the brown and the yellow, or tungstic acid. The brown oxide is formed by transmitting hydrogen gas over tungstic acid, in an ignited glass tube. It has a flea-brown color, and, when heated in the air, it takes fire and burns like tinder, passing into **TUNGSTIC ACID**; which see.

The brown oxide consists of

|            |              |
|------------|--------------|
| Tungstenum | 100          |
| Oxygen     | 16·6—Berzel. |

Hence if we regard it as composed of two primes oxygen + 1 metal, its composition will be

|            |       |      |
|------------|-------|------|
| Tungstenum | 12·05 | 100· |
| Oxygen     | 2·00  | 16·6 |

Hence, the acid prime ought probably to be  $12·05 + 3 = 15·05$  or 15, and that of the metal 12.

But from Berzelius's experiments tungstate of lime seems to consist of

|               |       |       |
|---------------|-------|-------|
| Tungstic acid | 100   | 14·72 |
| Lime          | 24·12 | 3·55  |

The difference indeed is not great.

Sir H. Davy found that tungstenum burns with a deep red light when heated in chlorine, and forms an orange-colored volatile substance, which affords the yellow oxide of tungstenum and muriatic acid when decomposed by water.

Scheele supposed the white powder obtained by digesting the ore in an acid, adding ammonia to the residuum and neutralising it by nitric acid, to be pure acid of tungsten. In fact it has a sour taste, reddens litmus, forms neutral crystallisable salts with alkalies, and is soluble in twenty parts of boiling water. It appears, however, to be a triple salt, composed of nitric acid, ammonia, and oxide of tungsten, from which the oxide may be obtained in a yellow powder, by boiling with a pure concentrated acid. In this state it contains about twenty per cent. of oxygen; part of which may be expelled by a red heat, when it assumes a green color.

Tungsten is insoluble in the acids, and its oxide is nearly the same. It appears to be capable of uniting with most other metals, but not with sulphur. Guyton found that the oxide gives great permanence to vegetable colors.

**TUNGSTIC ACID**, in chemistry, a new acid extracted from the new metal called tungsten. Of this acid Dr. Thomson gives the following account in his *System of Chemistry*, vol. ii. p. 87, 88 :—'The substance called tungstic acid by Scheele and Bergman was discovered by Scheele in 1781. This philosopher obtained it from tungstat of lime, by treating it with nitric acid and with ammonia alternately. The acid dissolves the lime, and the ammonia combines with the tungstic acid. The ammoniacal solution, when saturated with nitric or muriatic acid, deposits a white powder, which is the tungstic acid of Scheele. This powder has an acid taste, it reddens vegetable blues, and is soluble in twenty parts of boiling water.' But the D'Elhuyarts have demonstrated that this pretended acid is a compound of yellow oxide of tungsten, the alkali employed to dissolve it, and the acid used to precipitate it. Thus, when prepared according to the above process, it is a compound of yellow



oxide, ammonia, and nitric acid. Their conclusions have been more lately confirmed by the experiments of Vauquelin and Hecht. This substance must therefore be erased from the list of acids, and placed among the salts. The real acid of tungsten is a yellow powder; the method of procuring which and its properties are thus described by Dr. Thomson, vol. i. p. 215 :—The black oxide of tungsten, which contains the smallest proportion of oxygen, may be obtained by heating the yellow oxide for some hours in a covered crucible. The yellow oxide, known also by the name of tungstic acid, is found native in wolfram, and may be obtained from it by boiling three parts of muriatic acid in one part of wolfram. The acid is to be decanted in about half an hour, and allowed to settle. A yellow powder gradually precipitates. This powder is to be dissolved in ammonia, the solution is to be evaporated to dryness, and the mass kept for some time in a red heat. It is then yellow oxide in a state of purity. This oxide has no taste. It is insoluble in water, but remains long suspended in that liquid, forming a kind of yellow milk, which has no action on vegetable colors. When heated in a platinum spoon it becomes dark green; but before the blowpipe on charcoal it acquires a black color. It is composed of eighty parts of tungsten and thirty of oxygen. Its specific gravity is 6.12. See CHEMISTRY.

**TUNGUSES**, a wandering native race of Asiatic Russia, who cover nearly the whole south-eastern portion of that territory. They are first found on the banks of the Yenisei, whence they extend all the way eastward to the sea of Okhotsk. In the more southerly districts, however, they are mixed with the Mongols and Burats. Although a few also reach to the borders of the northern ocean, yet in general they give place there to the Yakoutes and Samoyedes. To the west of the Yenisei a few are mixed with the Tartars and Ostiaks; but in general the province of Irkoutsk proper is that of which they may be considered as the denizens. The Tunguses are of a middle size, of a robust constitution, and endowed with the greatest agility. Their countenance bears a considerable resemblance to that of the Mongols, though it is larger and still more flattened.

**TUNIC**, *n. s.* } Fr. *tunique*; Lat. *tunica*.  
**TUNICLE**. } Part of the Roman dress; any natural covering or integument: this last is also the sense of tunicle.

The dropsy of the *tunica vaginalis* is 'owing to a preternatural discharge of that water continually separating on the internal surface of the *tunic*.

Lohocks and syrups abate and demulce the hoarseness of a cough, by mollifying the ruggedness of the intern *tunic* of the gullet.

*Shakspeare.*  
*Harvey on Consumption.*

The humours and *tunicles* are purely transparent, let in the light and colour unsoiled.

Their fruit is locked up all winter in their gems and well fenced with neat and close *tunicks*.

*Derham's Physico-Theology.*

One single grain of wheat, barley, or rye, shall contain four or five distinct plants under one common *tunicle*; a very convincing argument of the providence of God.

*Bentley.*

The *tunicks* of the Romans, which answer to our waistcoats, were without ornaments, and with very short sleeves.

*Arbutnot on Coins.*

**TUNICA**, a kind of waistcoat or under garment in use among the Romans. They wore it within doors by itself, and abroad under the gown. The common people could not afford the toga, and so went in their tunics; whence Horace calls them *populus tunicatus*.

**TUNICA**, in anatomy, is applied to the membranes which invest the vessels, and divers others of the less solid parts of the body; thus the intestines are formed of five tunics or coats.

**TUNICA ARACHOIDES.** See ANATOMY, Index.

**TUNING OF KEYED INSTRUMENTS.** The method of tuning any instrument by means of the monochord is as follows: First you must tune the C of the monochord to the concert pitch by means of a tuning fork; next you are to put the middle C of your instrument in perfect unison with the C of the monochord: then move the sliding fret to the next division on the scale, and proceed in the same manner with all the several notes and half notes within the compass of an octave. When this is done with accuracy, the other keys are all to be tuned, by comparing them with the octave which is already tempered. The monochord is here supposed to be made to the pitch of C; but this may be varied at the will of the constructor.

**TUNIS**, a territory of Northern Africa, one of the most powerful of the Barbary states, consists chiefly of a large peninsula, stretching into the Mediterranean in a north-easterly direction, and coming within less than 100 miles of the coast of Sicily. Beginning at Cape Jerbi, the frontier point of Tripoli, the coast extends north-erly with a slight declination to the east; but after turning Cape Bon, its general direction is easterly, with a slight declination to the south. It terminates at Cape Roux, in lat. 37° N., and the whole extent is about 500 miles. The cultivated part reaches from 200 to 250 miles into the interior, till it terminates with the chain of Atlas and the vast dry plains of the Bled el Jereede. There are few countries more highly favored as to natural beauty. It is watered by the river Mejerdah, celebrated by the ancients under the name of Bagrada, and which contains on its banks many towns and large villages, with from 5000 to 15,000 inhabitants. Its banks, and the country to the eastward, are the best cultivated parts of the regency. That on the west side, being exposed to the inroads of the Algerines, is more thinly inhabited.

The tracts to the south called Bled el Jereede, or the country of dates, though not presenting the same rich aspect as those on the sea coast, yield in plenty not only the date, but grain of different kinds, and contain a number of large villages. The inhabitants are almost exclusively governed by chiefs of their own, the Tunisians merely sending once a year a flying column to collect the tribute, rather in the form of military exaction than of voluntary gift. The mountains near Tunis contain mines of silver, copper, and lead; and there is one of quicksilver near Porto Tarina; but these sources of national wealth are not turned to any account.

This territory, from the manner in which it projects into the Mediterranean, is peculiarly favorable for carrying on the trade of that sea, and comes also into closer contact with the European powers than any other of the Barbary states. Upon these advantages were founded the rise of Carthage, the first commercial state of antiquity. 'The dreadful imprecations of their eternal enemy the Romans (says an able journalist) have been strictly fulfilled against this devoted city. In vain does the inquisitive traveller seek in the neighbourhood of Tunis for the triple wall with its lofty towers, whose capacious chambers contained stalls for 300 elephants, and stables for 4000 horses, with lodgings for a numerous army—in vain does he look for those safe harbours and sheltered receptacles—for those 2000 ships of war and 3000 transports which carried Hamilcar and his warriors against Syracuse: a few remains of the public cisterns and the common sewers are all that are left to point out the spot where Carthage, with its 700,000 inhabitants, once stood.' Though Carthage, however, was razed to the ground, the Romans made its territory the centre of their African dominion, and covered it with magnificent monuments of their taste and wealth. In the irruption of the barbarous nations upon Rome the Vandals were the first who seized upon Africa, where Genseric erected a powerful piratical dominion, whose fleets on one occasion took and sacked the capital of the Roman empire. All other occupants, however, were destined to give way before the torrent of Saracen conquest. Sidi Occuba, a lieutenant of the caliph Othman, conquered all this part of Africa and erected it into a kingdom, of which Kairwan, or Cairoan, was the capital. After many revolutions, in the end of the twelfth century, the dynasty of the Almohades was established in Morocco, and Tunis was governed by a viceroy. Under Charles V. this city was the theatre of contention between the troops of that emperor and Barbarossa the celebrated pirate. The Spanish expedition was completely successful; and a treaty was concluded, stipulating for a general liberation of the captives, and for a free intercourse between Tunis and the European states. This continued till 1574, when the expedition sent by Selim, under Sinan Basha, drove the Spanish garrison out of the Goletta and annexed Tunis to the Turkish empire. It was governed for some time by its viceroys, called deys; but the people, or rather the soldiery, soon acquired the privilege of electing their own dey; and that officer may now be considered entirely independent of the porte. The chief danger of the Tunisian state arises at present from the Algerines.

TUNIS, a large city of Barbary, capital of the foregoing territory, is situated at the bottom of a bay, about ten miles south-west from the site of the ancient Carthage, of which it may properly be considered as the successor. It is situated on a plain, surrounded on all sides, except the east, by considerable heights, but so encircled by lakes and marshes that it might be expected to be very unhealthy; yet from some cause not fully ascertained this effect does not take place. The city is large, being supposed to contain

12,000 houses, and 130,000 inhabitants. Of these 30,000 are Jews and about 1500 Christians, of whom 1000 consider themselves the subjects of France; the rest, with the exception of the consuls and their suite, are Tabarca families who were driven out when the Genoese republic became annexed to France. Tunis is built in the most irregular manner, and the streets so extremely narrow and filthy that they can with difficulty be passed. Though large sums have been spent in the construction of forts, and in surrounding the city with a high wall, it is by no means a strong place. The citadel, called El Gaspa, begun by Charles V. and finished by John of Austria, is much out of repair, and commanded by the neighbouring heights; there is also a rising ground on the north of the town, which commands both it and the fortified palace of the bey two miles west. There is one great mosque and a number of smaller ones; and near the centre of the city a piazza of vast extent, said formerly to have contained 3000 shops for the sale of woollen and linen manufactures. The finest present structure is the new palace of the bey, in the Gothic or Saracenic style; neither pains nor expense have been spared in its decoration. The houses belonging to European consuls are all insulated habitations, and rather resemble prisons than the abodes of those who are to represent the dignity of great nations. The Moorish houses are only one story high, with flat roofs, and cisterns for the purpose of collecting the rain water. The city, however, is well supplied from a neighbouring spring, which is conveyed into it by a fine aqueduct built in the time of Charles V. There are a few colleges and schools, it being customary here, as in other parts of Barbary, to instruct all the youth in the knowledge of reading, writing, and the koran; and the police was never so well regulated as at present. About ten years ago it was scarcely possible for a Christian to walk the streets without being insulted.

Six miles westward is the Goletta, the celebrated harbour and citadel of Tunis, and the great naval and commercial dépôt of the state. A basin has been formed here sufficiently spacious to receive all its vessels of war and merchant ships; and considerable quantities of timber are brought from Tabarca. The Goletta is strongly fortified towards the sea, but is commanded by a hill to the north, at the distance of not more than 3500 yards. A large lake, separated from the sea by a very narrow isthmus, extends from Tunis to the Goletta.

The bey of Tunis enjoys the same absolute power as the other Barbary sovereigns. Although Tunis had almost entirely thrown off its dependence on the Porte, yet the troops by which its despotic power was supported consisted of Turkish recruits, whom they were allowed to draw from the different ports of the Levant; when the treatment of these becoming severe the number could not be kept up by voluntary enlistment, and they are obliged to have recourse to artifice and kidnapping. A general revolt therefore took place among the Turkish soldiers to the number of 6000; and, having seized the citadel of El Gaspa, they would probably have maintained



themselves, had it not been for Mr. Egan, a young British officer, who organised and led on the troops of the bey, and at length compelled the insurgents to fly or surrender. Since that time the Turks have enjoyed very little of the confidence of the government. Grain, the exportation of which in the other states on this coast is absurdly prohibited, forms here the principal staple. It cannot be exported without licence from the bey, and the payment of duties to the amount on wheat of twenty-two piastres and a half (£1 10s.) on the coffees (equal to two English quarters), and half that amount on barley. A temporary rise is sometimes capriciously made; but the French merchants, by bribing the bey's officers, contrive to ship a much greater quantity of corn than is named in the licence. The Tunisians also heap all their measures. The principal port for shipping grain is Biserta. Olive oil is the next staple. It pays two piastres and a half (3s. 4d.) per metal of forty English pounds. The principal ports for shipping it are Tunis, Soliman, and Susa, the last of which is the best. The Tunisian oil does not become rancid so soon as the Italian oils, and they have an excellent mode of packing it. Wool and soap are also exported in large quantities. A considerable quantity of sponge is collected on the shore, between Sfax and Jerbi, which, though inferior to that of the Black Sea, finds always a ready market in the Mediterranean. It may be obtained at from 30s. to £2 2s. per cwt. The caravans from Tombuctoo, which arrive in June, furnish the Tunisian merchants with gold dust, ivory, and ostrich feathers: the other imports consist of all kinds of European manufactures, colonial produce, and East India cottons. The species of British goods chiefly demanded is that species of woollens called scarlet long ells, which the caravans carry in large quantities into central Africa. France, however, when the intercourse is open, has obtained a preference in the Tunisian trade, though it often secures the sale of its manufactures by giving them the name of Londras. The best time to send a cargo to Tunis, especially of woollens, is in September or October. Provisions, particularly beef and flour, may be had good. Long. 10° 20' E., lat. 36° 44' N.

**TUNIS, BAY OF**, a bay of the Mediterranean, comprehending a coast of 120 miles, in the interior part of which is the city of Tunis. It is bounded on the east by Cape Bon, and on the west by Cape Farinas. It is one of the safest in the Mediterranean.

**TUN'NEL, n.s. & v. a.** From **TUN**, i.e. a tube to fill a tun with. The shaft of a chimney; sage for smoke or liquid; a funnel: to tunnel is to form like a tunnel; to reticulate.

It was a vault ybuilt for great dispence,  
With many ranges reared along the wall,  
And one great chimney, whose long tunnel thence  
The smook forth threw. *Spenser.*

For the help of the hearing, make an instrument like a *tunnel*, the narrow part of the bigness of the hole of the ear, and the broader end much larger.

*Bacon.*

The water being rarified, and by rarification resolved into wind, will force up the smoke, which

otherwise might linger in the *tunnel*, and oftentimes reverse. *Wotton's Architecture.*

The phalæna tribe inhabit the *tunnelled*, convolved leaves. *Derham's Physico-Theology.*

**TUNNELS**, for the conveyance of water and passengers, are not of so modern a date as is generally supposed; though but little public interest was excited by any work of this kind prior to the commencement of the great undertaking at Rotherithe. The earliest tunnel for the purpose of internal navigation was executed by M. Rignet, in the reign of Louis XIV. The object was to forward a public work, beneficial in its tendency, the canal of Languedoc, by conveying it through a mountain near Beziers. This required no inconsiderable art and labor: it is cut into a lofty arcade, and lined with freestone the greatest part of the way. Towards the ends it is only hewn through the rock, the substance of which is of a soft sulphureous nature.

The first excavated in this country was by the ingenious Mr. Brindley, on the duke of Bridgewater's navigation near Manchester. The next was the justly celebrated tunnel of Harecastle Hill, in Staffordshire, excavated also by Mr. Brindley. The plan and execution were masterly and admirably suited to the purpose. It passes more than seventy yards below the surface of the earth, and is carried through a variety of strata, quicksands, &c.; its length is 2880 yards. The object was to pass a canal through it from the Trent to the Mersey; this has since been called the Grand Trunk.

Another work of prodigious difficulty, and a great exemplification of ingenuity, was the tunnel of Sapperton. Much ability appears in the execution of this design. The tunnel here was carried through two miles of solid rock; its extreme length is two miles and three-quarters. By conveying an inland navigation through it, the river Thames and Severn were united.

In the Great Drift, or tunnel, about four miles above Newcastle, the art of excavation may be considered as having ascended to the highest state of improvement. This was finished in 1797, and is three miles and a quarter in length; a great part is perforated through a hard rock of whinstone, nearly equal in density to the hardest flint. It reaches from the banks of the river Tyne to near Kenton.

The underground communication between Rochester and Gravesend is especially worthy of attention. The canal is 7 miles in length, and has been twenty-five years in progress. The sections of this tunnel are of different curvatures, part being parabolic and part circular; the crown of the arches all coinciding. The intrados of the vaulting presents a surface consisting partly of brick, and partly of chalk, in alternate lengths, of various dimension, according to the strength of the material, which appears to have required support more in some places than in others. The width at the springing is about thirty feet; out of which a commodious towing path six feet wide is reserved, leaving about twenty-four feet water-way. The crown of the arch is about fifteen feet above the surface of the towing path. The latter is

guarded by a strong oak rail, bolted to cast iron supports, which are firmly connected with stone bearers, bedded in the chalk. The width of the water-way will not allow barges to pass each other; they are, therefore, only allowed to enter either end at certain periods, so as to prevent the possibility of an encounter: at one end, for instance, all barges arriving at the tunnel, during a period of one hour, are permitted to enter, and another hour is allowed for the passage; during which period of two hours all barges arriving at the other end remain stationary, and then take their turn, while those which may now arrive at the opposite end are detained for a similar period of two hours; and so on alternately. The whole length of the tunnel is rather more than two miles and a quarter; and at mid-day there is light sufficient in the middle of its length to read large print, a circumstance owing very much to the reflective power of the chalk; against which the light, striking by alternate angles of incidence and reflection, is conveyed to so considerable a distance. The difference between the brick and the chalk surfaces, in this respect, is striking observable as you traverse the tunnel; the former absorbing, and the latter reflecting, the light. The tunnel is perfectly dry throughout, excepting one part at the Frindsbury end, where the water drips through in small quantities. The reflection of the chalk on the clear surface of the water (more distinctly visible as you approach either end), apparently doubling the magnitude, and the entire absence of every sound but that of the slow and measured footsteps of the quadrupeds employed in towing the craft, stealing on the ear at a distance, and becoming gradually louder and louder as it reverberates through the tunnel, combine to produce an emotion of sublimity which enhances, not a little, the interest with which this work will be contemplated by the intelligent passenger.

The tunnel at Rotherhithe was commenced in 1825. The preparations for constructing the shaft consisted of a circle of piles of large scantling, bounding a very stout timber curb, shod with iron (on the under side) and securely bolted together. This timber curb was three feet six inches wide, and fifty feet in diameter, forming the base for a circular brick structure, which was three feet in thickness, and was built up forty feet in height. The brick work was set in Roman cement, and was well secured by horizontal band hoops, let in the courses at short intervals from each other, and was bound vertically by means of forty-eight iron ties, the aggregate strength of which was more than sufficient to carry the whole structure, although its weight would exceed 1000 tons. When the structure was completed to the height of forty feet, the interior was excavated, and it sunk by degrees, and by its own weight, to the depth of about thirty-four feet, but would not go lower, owing to the outside friction. It then became necessary to build up from the bottom of the shaft, as the further excavation was being effected, in order to unite the whole with the structure already sunk, and by this means an admirable piece of workmanship was accomplished.

The tunnel, when completed will be about 1300 feet in length, and consist of two arches, in order that there may be no obstruction to carriages; but, the estimated expense having considerably exceeded the sum originally proposed, the whole work is remaining in abeyance till fresh funds are provided.

TUN'NY, *n. s.* Ital. *tonnen*; La. *thyynnus*. A sea-fish.

Some fish are boiled and preserved fresh in vinegar, as *tunny* and *turbot*. *Carex*.

TUNQUIN, or TONQUIN, a large kingdom of Eastern Asia, bordering on the Chinese provinces of Quangsee and Yunan, and separating that empire from Cochin-China and Cambodia. It surrounds a gulf of the Chinese Sea, at the mouth of which is the island of Hainan. The frontier to the north and west consists of mountains of considerable height, the breezes from which, and from the sea, preserve always a tolerable degree of coolness. The central part of the country consists of a vast plain, traversed by numerous rivers, chiefly tributaries to the great one called Saigong, which flows through the whole breadth of Tunquin, and on which all the principal towns are situated. The rains which fall between April and August cause these rivers to overflow and inundate a great part of the country. The plains, thus covered with copious moisture, yield ample crops of rice and other tropical productions. Some parts of them are rescued from the sea and rendered capable of cultivation by artificial barriers. Rice is almost the only grain cultivated; but potatoes, yams, and other roots, furnish a large share of the popular subsistence. The usual tropical fruits abound; and the orange of Tunquin is said to be the best in the world. The tea tree is almost as common as in China.

Tunquin, originally a portion of China, was detached from that empire in 1368. The patriarchal forms of government were, however, still observed, and were administered by Mandarins, among whom letters formed the chief road to distinction. By degrees, however, the commander of the forces having rendered his office hereditary, succeeded in attracting all the power to his own person, and left to the original dynasty only an empty shadow of royalty. Of late years the government of Tunquin, having been involved in war with that of Cochin-China, has been entirely subdued, so that with Cambodia and all the countries between Siam and China, it is united under one empire.

The trade of Tunquin is not considerable, and scarcely any part of it is carried on by the natives themselves, but almost the whole by merchants from China and Siam. The attempts made by European merchants to establish an intercourse have been transient and unsuccessful. The chief commodities to be obtained here are silks and lacquered ware. The silks are both raw and wrought, their pelongs, gauzes, &c., being very beautiful and cheap, while the lacquered ware is considered scarcely inferior to that of Japan. Gold may also be procured in considerable quantity. Minor articles of export are, earthenware, drugs, Chinese paper, dyeing woods, musk, rhubarb, tortoiseshell,



ginger, and cassia. The native merchants being very poor, Europeans on their arrival must advance a third or a half of the future cargo, and must wait till it is brought down from the country. No customs are charged, but a Mandarin comes on board, examines the vessel, and takes whatever he pleases at his own price. The little broad cloth accepted of must be red, black, grass-green, or blue. They take also pepper, salt-petre, gingham, chintz, guns, and some few other commodities. The price of silver varies according to the quantity in the market; and, though theirs is frequently alloyed, they will not admit any deduction on that account.

**TUNSTALL** (James), D. D., a learned English divine born in 1710, and educated at St. John's College, Cambridge. He became rector of Stwimer, in Essex, in 1739, and public orator of the university in 1741. He wrote *Academica*, or, Discourses upon Natural and Revealed Religion, and several other works; and died in 1772.

**TUR'BAN**, *n. s.* } Fr. *turban*; Pers. *tur-*  
**TUR'BANT**, } *bund*; Turk. *tulpan*. The  
**TUR'BAND**, } cover worn by the Turks  
**TUR'BANED**, *adj.* } on their heads: turbanded  
is wearing a turban.

Gates of monarchs  
Arched so high, that giants may jet through,  
And keep their impious *turbans* on, without  
Good-morrow to the sun. *Shakspeare.*

A *turbaned* Turk  
That beat a Venetian, and traduced the state,  
I took by the throat. *Id.*  
His hat was in the form of a *turban*, not so huge  
as the Turkish *turbans*. *Bacon.*  
From utmost Indian isle, Taprobane,  
I see the Turk nodding with his *turbant*. *Howel.*  
Dusk faces with white silken *turbans* wreathed.  
*Milton.*

Some, for the pride of Turkish courts designed,  
For folded *turbans* finest Holland bear. *Dryden.*

**TURBAN**, the head-dress of the eastern nations. It consists of two parts, a cap and sash of fine linen or taffety, artfully wound in divers plaits about the cap. The cap has no brim, is pretty flat, though roundish at top and quilted with cotton; but does not cover the ears. The sash of the Turk's turban is white linen; that of the Persians red woollen. These are the distinguishing marks of their different religions; Sophi king of Persia, being of the sect of Ali, was the first who assumed the red color to distinguish himself from the Turks, who are of the sect of Omar, and whom the Persian esteem heretics.

**TURBETH MINERAL**, yellow-deutosulphate of mercury.

**TUR'BID**, *adj.* Lat. *turbidus*. Thick; muddy; not clear.

Though lees make the liquid *turbid*, yet they refine the spirits. *Bacon.*

The brazen instruments of death discharge  
Horrible flames, and *turbid* streaming clouds  
Of smoke sulphureous; intermixed with these  
Large globous irons fly. *Philips.*

The ordinary springs, which were before clear, fresh, and limpid, become thick and *turbid*, as long as the earthquake lasts.

*Woodward's Natural History.*

**TURBIDO** (Francis), an eminent Italian painter, born at Verona in 1500. He studied

under Giorgione and Veronese. He painted in oil and in fresco. His best piece is a transfiguration. He died in 1581.

**TUR'BINATED**, *adj.* Latin *turbinatus*. Twisted; spiral; passing from narrower to wider.

Let mechanism here produce a spiral and *turbinated* motion of the whole moved body, without an external director. *Bentley.*

**TUR'BITH**, *n. s.* Lat. *turpethus*. Yellow mercury precipitate.

I sent him twelve grains of *turbith* mineral, and purged it off with a bitter draught. I repeated the *turbith* once in three days; and the ulcers shelled soon off. *Wiseman's Surgery.*

**TURBITH MINERAL**. See **CHEMISTRY**.

**TURBO**, the wreath, in zoology, a genus of insects belonging to the order of vermes tastacea. The animal is of the snail kind; the shell consists of one spiral solid valve, and the aperture is orbicular. There are 116 species, of which the most remarkable are, 1. *T. clathrus*, or barbed wreath, has a taper shell of three spires, distinguished by elevated divisions running from the aperture to the apex. There is a variety pellucid, with very thin edges. It is analogous to that curious and expensive shell the wentle trap. 2. *T. littoreus*, or periwinkle. They are abundant on most rocks far above low-water mark.

**TURBOT**, *n. s.* Fr. and Belg. *turbot*. A delicate fish.

Some fish are preserved fresh in vinegar, as *turbot*. *Carew.*

Of fishes you shall find in arms the whale, the salmon, the *turbot*. *Peacham.*

Nor oysters of the Lucrine lake  
My sober appetite would wish,  
Nor *turbot*. *Dryden.*

**TURBOT**, in ichthyology. See **PLEURO-NECTES**.

**TUR'BULENCE**, *n. s.* } Fr. *turbulence*;  
**TUR'BULENCY**, } Latin *turbulentia*.  
**TUR'BULENT**, *adj.* } Tumult; confusion;  
disorder: the adjective corresponding.

I have dreamed  
Of bloody *turbulence*; and this whole night  
Hath nothing been but forms of slaughter. *Shakspeare.*

Of-times noxious where they light  
On man, beast, plant, wasteful and *turbulent*,  
Like *turbulencies* in the affairs of men,  
Over whose heads they roar, and seem to point:  
They oft fore-signify and threaten ill. *Milton.*

I come to calm thy *turbulence* of mind,  
If reason will resume her sovereign sway. *Dryden.*  
Nor need we tell what anxious cares attend  
The *turbulent* mirth of wine, nor all the kinds  
Of maladies that lead to death's grim cave,  
Wrought by intemperance. *Id.*

Men of ambitious and *turbulent* spirits, that were dissatisfied with privacy, were allowed to engage in matters of state. *Bentley.*

You think this *turbulence* of blood  
From stagnating preserves the flood,  
Which thus fermenting by degrees,  
Exalts the spirits, sinks the lees. *Swift.*

**TURCÆ**, or **TURCI** (Mela), supposed to be the Tusi of Ptolemy, whom he places between Caucasus and the Montes Ceraunii. The name is said to denote, 'to desolate or lay waste.' Herodotus places them among the wild or bar-

barous nations of the north. There is a very rapid river called Turk running into the Caspian Sea, from which some suppose the Turks to take their name. They made no figure in the world till towards the seventh century; about the beginning of which they sallied forth from the Portæ Caspiæ, laid waste Persia, and joined the Romans against Chosroes king of Persia: In 1042 they subdued the Persians, in whose pay they served, and from whom they derived the Mahometan religion; and afterwards pouring forth overran Syria, Cappadocia, and the other countries of the Hither Asia, under distinct heads or princes, whom Ottoman subduing united the whole power in himself, which to this day continues in his family, and who fixed his seat of empire at Prusa in Bithynia. His successors subdued all Greece, and at length took Constantinople in 1453, which put a period to the Roman empire in the east, under Constantine XIII. There is a standing tradition among the Turks that their empire will at length be overturned by the Franks or Christians.

**TURCOMANIA**, a province of Asiatic Turkey, comprehending the ancient kingdom of Armenia, or that part of Armenia which belongs to the Turks.

**TURCOMANS**, or **TRUCKMEN**, a Nomadic Tartar race, who fill with their hordes many districts of Western Asia. Their native seat seems to be east of the Caspian, in the vast plains between it and the Aral. Being conquered by the Kalmucs, at the beginning of the last century, they took refuge in the Russian governments of Astracan, Oufa, and Orenbourg, and have continued to reside there ever since 1770, when the body of the nation threw off the Kalmuc yoke. They live in tents of felt, and have no fuel but twigs and dried cow dung. Their food consists in horse flesh and sour milk. They are particularly dexterous in the use of the bow and arrow, arms which they take great delight in ornamenting. They wear also very rich sabres. They are all Mahometans, and are polite, friendly, and communicative.

**TURF**, *n. s. & v. a.* Sax. *tyrf*; Belg. and Swed. *torf*. A clod covered with grass; a part of the surface of the ground: to cover with turf.

Where was this lane?

—Close by the battle, ditched, and walled with turf.

*Shakespeare.*

Turf and peats are cheap fuels, and last long.

*Bacon.*

Could that divide you from near ushering guides!

—They left me weary on a grassy turf.

*Milton.*

Each place some monument of thee should bear; I with green turfs would grateful altars raise.

*Dryden.*

Their bucklers ring around,  
Their trampling turns the turf, and shakes the solid ground.

*Id. Æneid.*

The face of the bank next the sea is turfed.

*Mortimer.*

His flock daily crops

Their verdant dinner from the mossy turf,  
Sufficient.

*Phillips.*

The ambassador every morning religiously saluted a turf of earth dug out of his own native soil, to remind him that all the day he was to think of his country.

*Addison.*

Yet shall thy grave with rising flowers be drest,  
And the green turf lie lightly on thy breast. Pope.

**TURDUS**, the thrush, a genus of birds belonging to the order of passeræ: The bill is straightish, bending towards the point, and slightly notched near the end of the upper mandible. The nostrils are oval, naked, or half covered with a membrane; the corners of the mouth are furnished with a few slender hairs, and the tongue is slightly jagged at the end. There are 136 species, of which seven are British; viz: all the following, except the polyglottus:—

1. *T. iliacus*, the redwing; a very near resemblance to the throistle but less: 2. *T. merula*, the blackbird, when it has attained its full age is of a fine deep black, and the bill of a bright yellow; the edges of the eyelids yellow. When young the bill is dusky and the plumage of a rusty black, so that they are not to be distinguished from the females; but at the age of one year they attain their proper color. This species is of a very retired and solitary nature; frequents hedges and thickets, in which it builds earlier than any other bird. It lays four or five eggs of a bluish-green color, marked with irregular dusky spots. The note of the male is extremely fine, but too loud for any place except the woods; it begins to sing early in the spring, continues its music part of the summer, desists in the moulting season, but resumes it for some time in September and the first winter months. 3. *T. musicus*, the throistle, in length nine inches, in breadth thirteen and a half. In color it so nearly resembles the missel (No. 8.) that no other remark need to be added but that it is less, and that the inner coverts of the wings are yellow. 4. *T. pilaris*, the fieldfare, is in length ten inches, in breadth seventeen. 5. *T. polyglottus*, or the mocking thrush, a native of America. 6. *T. roseus*, a native of Great Britain. 7. *T. torquatus*, or ring-ouzel, superior in size to the blackbird; the length is eleven inches, breadth seventeen. 8. *T. viscivorus*, the missel, the largest of the genus. Its length is eleven inches, its breadth sixteen and a half. The bill is shorter and thicker than that of other thrushes; dusky, except the base of the lower mandible, which is yellow. The irides are hazel. Head, back, and lesser coverts of the wings, are of a deep olive brown. The lower part of the back is tinged with yellow.

**TUR'GID**, *adj.* Lat. *turgidus*. Swelling; bloated; filling more room than before.

The spirits embroiled with the malignity, and drowned in the blood turgid and tumified by the febrile fermentation, are by phlebotomy relieved.

*Harvey on Consumptions.*

The instant turgescence is not to be taken off, but by medicines of higher natures.

*Browne's Vulgar Errors.*

A bladder, moderately filled with air, and strongly tied, held near the fire, grew turgid and hard; and, brought nearer, suddenly broke with vehement noise.

*Boyle.*

Disburthen thou thy sapless wood  
Of its rich progeny; the turgid fruit  
Abounds with mellow liquor.

*Philips.*

Those channels, turgid with the obstructed tide,  
Stretch their small holes, and make their meshes wide.

*Blackmore.*



Some have a violent and *turgid* manner of talking and thinking; whatsoever they judge of is with a tincture of this vanity.

*Watts's Logick.*

Where humours are *turgent*, it is necessary not only to purge them, but also to strengthen the interested parts.

*Government of the Tongue.*

The forerunners of an apoplexy are dulness, slowness of speech, vertigos, weakness, wateriness and *turgidity* of the eyes.

*Arbuthnot on Diet.*

The clusters clear,

White o'er the *turgent* film the living dew.

*Thomson.*

**TURGOT** (Anne Robert James), the famous financier, was born at Paris May 10, 1727, of a very ancient Norman family. His father was long provost of the merchants. M. Turgot, at the age of twenty-three, took his degree, and was elected prior of the Sorbonne, and afterwards master of requests. About this period he wrote some articles for the *Encyclopedie*. In 1761 he was appointed intendant of Limoges, in which office he did much good. At the death of Louis XV. the public voice called M. Turgot to the first offices of government, as a man who united the experience resulting from habits of business to all the improvement which study can procure. After presiding in the marine department a short time he was, August 24th, 1774, appointed comptroller-general of the finances. During his discharge of this important office the beneficial objects he accomplished are almost incredible. In the more immediate department of financier he found the public borrowing at five and a half per cent. and reduced the rate to four. He lessened the public engagements 84,000,000. He found the revenue 19,000,000 deficient, and left a surplus of 3,500,000. His merits, however, only served to inflame the envy of courtiers. He was obliged to resign within twenty months. In retirement his intellectual attainments effectually prevented the intrusion of ennui. He died March 20, 1781.

**TURIN**, a large city of Piedmont, the capital of the Sardinian monarchy, stands in a beautiful plain, on the west bank of the Po, which here receives the waters of the Dora Ripuaria, and flows with a copious stream at a short distance from the walls. The country is luxuriant; on one side beyond the river rises a beautiful range of hills; on the other a plain strewed with villas and gardens, extends as far as the base of the Alps. The town is of an oblong form, and includes, with the ramparts, a circuit of about four miles. Its citadel and other fortifications placed it at one time in the rank of the strongest places in Europe; but they were demolished by the French after the battle of Marengo. The streets are in general wide and straight, intersecting each other at right angles, and running in direct lines from one extremity of the city to the other; several of them have at the sides arcades or piazzas; the whole kept clean by means of streams of clear running water. The principal square, the Piazza Reale, is near the centre of the town, and ranks, both for its size and beauty, among the most elegant squares of Europe. On one of its sides stands the royal palace; in the centre is the structure erected by the dukes of Savoy, and commonly called the

Castello Reale. On three of the sides of the square are arcades. The piazza di St. Carolo, though smaller, is also entitled to notice.

Perhaps the finest of the streets is the di Po, which stretches from the central square called the Piazza Reale, to the banks of the river. It is straight, broad, and bordered on each side with arcades. The Contrada di Dora Grande extends from the opposite side of the central square; it is equally straight as the Strada di Po, and considerably longer, but neither so spacious nor so handsome. The houses are in general built of brick, and the best are plastered in front with stucco. Like most towns which have been rebuilt, Turin has an old quarter, but it is very inconsiderable. It is called Torino Vecchio; and its streets, though less wide and handsome than those of the new town, are in general regular. Of the public walks the most frequented are the royal gardens, and the terrace on the other side of the river. The Rondo, extending between the city walls and the banks of the Po, is also resorted to as an evening walk; while the Valentina, another promenade along the Po, about a mile from the town, is little visited.

The cathedral is an old Gothic edifice, remarkable for nothing but its marble cupola. The church of Corpus Domini is loaded with ornaments. Other churches claim attention only from their size, their pillars, or the variety of marble employed in their construction. The royal palace consists of three wings, surrounded by a court. Its extent is great, but in other respects it resembles the mansion of a rich individual, being of brick covered with tiles. Its interior, however, is not without magnificence, and the galleries contain a number of fine paintings, Italian and Flemish. The Castello Reale, situated in the midst of the square, has an elegant façade of the Corinthian order. The university contains a court surrounded with arcades, covered with inscriptions and antique bas reliefs. The arsenal has a large room for containing arms, and work-shops of some extent for the manufacture of fire-arms. The town contains other buildings of large size, but disfigured in general by misplaced ornaments and grotesque architecture. The opera, or principal theatre, may be compared to Drury-Lane. In hospitals Turin is richly endowed; the principal one affording both employment and support to its inmates, with education to the children. The city gates, four in number, were demolished by the French. In the vicinity, about a mile beyond the eastern ramparts, is the ancient Queen's chateau, situated at the foot of a hill. At a greater distance, about five miles from the city, stands the royal mausoleum and church, on the summit of a mountain.

**TURKEY**, *n. s.* Lat. *gallina turcica*. A large domestic fowl, supposed to be brought from Turkey.

Here h: comes swelling like a *turkey-cock*.

*Shakspeare.*

The *turkey-cock* hath swelling gills, the hen less.

*Bacon.*

So speeds the wily fox,

Who lately filched the *turkey's* callow care. *Gay.*

# T U R K E Y.

*Modern Turkey* embraces a multiplicity of ancient states, in Europe, Asia, and Africa, and receives its name from the Turks or Turkumans, a wandering horde, by whom it was conquered, and is at present possessed. With all the fury of Moslem conquerors, they over-ran some of the finest countries in the west of Asia and the east of Europe, and laid the foundation of their empire amidst the wreck of some of the finest monuments of ancient greatness and wisdom.

**TURKEY IN EUROPE** occupies the south-east portion of that continent, extending from about 36° 20' to 45° 40' N. lat., where Moldavia and Walachia form a projecting point, as far as 48°. It is chiefly comprised between 16° and 30° of E. long., and is bounded by the Russian and Austrian dominions on the north; by the Black Sea, Propontis, the Hellespont, and the Archipelago, on the east; by the Mediterranean on the south; and by the same sea, the Adriatic, and the Austrian territories, on the west. Its shape, exclusively of the north-eastern projection, is that of a triangle with very crooked and indented sides, of which the northern may be considered as the base, and the southern extremity of the Morea the vertex. Estimated at 45° of lat., the base will be nearly 680 English miles in length, and the least distance from the southern point to this line 570 miles; but from the northern extremity of Moldavia to the southern point of the Morea the distance is 870 miles. It has therefore about 195,000 English square miles of superficial extent, the population of which has been variously estimated; the mean is about 8,000,000, or nearly forty-one persons to each square mile.

European Turkey may be divided into northern and southern. The latter contains ancient Greece, and forms a peninsula bounded on the west by the Adriatic, on the south by the Mediterranean, and on the east by the Archipelago, while it borders upon Romelia, Servia, and Bulgaria on the other side. These are subdivided into provinces, which, with their chief towns and their inhabitants, are,

| NORTHERN DIVISION. |                          |             |
|--------------------|--------------------------|-------------|
| Provinces.         | Chief Towns.             | Population. |
| Moldavia           | Yassi . . . . .          | 40,000      |
| Walachia           | Bucharest . . . . .      | 80,000      |
| Croatia            | Bihatsh . . . . .        | 6,000       |
| Dalmatia           | Mostar . . . . .         | 9,000       |
| Bosnia             | Bosna-Serajo . . . . .   | 12,000      |
| Servia             | Belgrade . . . . .       | 25,000      |
| Bulgaria           | Sophia . . . . .         | 70,000      |
| Romelia            | Constantinople . . . . . | 400,000     |
| SOUTHERN DIVISION. |                          |             |
| Macedonia          | Salonica . . . . .       | 60,000      |
| Albania            | Ioannina . . . . .       | 30,000      |
| Livadia            | Setines (ancient Athens) | 10,000      |
| The Morea          | Misitra . . . . .        | 5,000       |

The shores of this heterogeneous empire are indented by numerous gulfs and bays, which se-

ver them into peninsulas, promontories, and capes. The gulf of Lepanto, in the Ionian Sea, is the chief inlet on the west, and peninsulates the southern part of Greece or the Morea; for Greece is yet nominally Turkish. On the eastern coast of this celebrated country the gulfs of Coron, Napoli, and Athens, present themselves. The large gulf of Salonica makes a deep opening into ancient Macedonia, while several others indent the upper part of the Archipelago. The most noted cape is that of Matapan, which forms the southern point of the European continent. Besides this, Cape St. Angelo, Cape Colonna south of Athens, and Cape Europa, near the entrance of the Dardanelles, from which some authors have derived the name of Europe, are all distinguished points. Having passed the Dardanelles, the sea of Marmora forms a part of the southern boundary. The Hellespont then intersects the isthmus between that sea and the Euxine, which thence forms a large convex sweep to the mouth of the Danube, and washes the eastern limits of these dominions. The boundary then follows that river to the influx of the Pruth, which it ascends north-west to the confines of Moldavia. There winding to the south, it reaches the Carpathian chain, and with it descends to the Danube, which with the Save then divide the Austrian from the Turkish territories to the western limits of Croatia, where, suddenly turning to the south, it joins the Adriatic. Many parts of the coast are composed of rocky promontories and inaccessible precipices, but others form inlets, creeks, and excellent harbours.

Long mountain ranges intersect this division of Turkey in various directions, and their lateral branches, with several detached hills and groups, diversify many of the other districts. These elevations, which often pierce the clouds, and are covered with perpetual snow, are separated by beautiful valleys and plains, and sometimes by extensive tracts of level country, watered by noble rivers, and smiling with spontaneous vegetation. The description which Mr. Thornton gives of two of the northern provinces may be applied to many other parts. 'The attention of the traveller is wholly absorbed in contemplating the beauty of the varied landscape, and the fertility of the soil which is improved by a rich though very inadequate cultivation. I have traversed both principalities in every direction, and retrace with the greatest pleasure the impressions left on my memory by their grand and romantic scenery; the torrents rushing down the precipices and winding through the valleys, the delightful fragrance of the lime flower, and the herbs crushed by the browsing flock, the solitary hut of the shepherd on the brow of the mountain, the mountain itself rising far above the clouds, covered over its whole surface, except the snowy region, with the finest vegetable earth, and every where adorned with lofty and majestic forests.'

The long chain which traverses Turkey from east to west bears at different parts the names



of Gliubotin, Argentaro, Despoto Dag, Teckiri Dag, and Balkan. The eastern half is the ancient Hæmus. This great range is connected with the Carpathians by a chain which, running northward, separates Servia from Bulgaria. On the south side it sends out secondary ranges, which traverse Albania, and extend through the whole of Greece, containing a number of names familiar to classical readers, such as Ossa, Pelion, Olympus, Parnassus, Oeta, Helicon, Pindus, and Taygetus. The Thracian mountains of Rhodope belong to the great chain.

The chief rivers in the north of Turkey, after the Danube, are the Pruth, Sereth, and Aluta, which flow into that great receptacle from the north; the Morava and the Save, which join it from the west and south. Other rivers, inferior to these, but of considerable size, run northward from the Hæmus ridge into the Danube. On the south side of that great range the outlet is the Archipelago; and the principal rivers the Marizza and the Vardar, the Hebrus and the Strymon of the ancients. Of the rivers in the west of Turkey, the principal are the Drino, the Narenta, the Vieza; in Albania, the largest is the Achelous. The lakes in Turkey are not considerable: the principal are those of Rosoura in Moldavia, Scutari in Albania, Ochrida between that country and Macedon, and Copais in Bœotia, which still emits the proverbial fogs of that country. The gulfs and bays are extremely numerous.

The products of Greece, and the maritime districts of Turkey in Europe, are sufficiently known; but with the mineralogy and botany of the interior we are perhaps less acquainted than with those of the wilds of America. When explored, they will probably be found rich in both vegetable and animal products—in quarries of marble, mines of iron, salt, sulphur, alum, nitre. Chestnuts, apples, pears, are found only in the northern provinces. The southern produce oranges, raisins, olives, figs, and almonds. The grape succeeds in almost every part of the empire, and wheat, maize, rice, cotton, silk, and tobacco, are all indigenous.

Among the animals, the horses of Thessaly have long been famous; and those of Walachia improve by a mixture with Tartar breeds. Cattle and horses are reared in almost every part of the empire. The goat is a useful animal in the mountains, and the ass and mule are like those of Italy. Bees abound in a wild state. In game no country is more abundant.

The government, we need hardly say, is despotic, the power of the sultan being unchecked by any representative body, though virtually restrained by the ordinances of the Koran, and the decisions of the ulema and mufti. He is farther restricted by certain usages which have the force of law, and an infraction of which might prompt to insurrection. But neither these ordinances nor usages protect the property of public individuals. To this the sultan is heir in the eye of the law, and may exercise his power over their lives and properties without any dread of discontent. The grand vizier, or prime minister, is by his office commander of the forces: when in the field, his functions at court are discharged

by a caimacan or deputy. The divan was formerly composed of six pachas; but Selim III. changed its constitution, and it is now limited to the mufti, the vizier, and the kioga bey, who is the lieutenant of the vizier. The other ministers are the reis effendi, whose office corresponds in part to that of the chancellor, in part to that of the secretary for foreign affairs, in Britain. The finance minister is called tefterdar; the master of the ordnance tschelebi: the latter is also receiver general of the taxes. The minister of marine is styled terræna emini; the secretary of state tschiaux bacchi. To these are added, in meetings of council, two persons who have held respectively the stations of reis effendi and tefterdar. On extraordinary occasions the capitan pacha and the kiaya of the sultana validi, or queen mother, are called in.

The pachas who are governors of provinces, by a strange mixture of powers, act as farmers-general of the revenue, and a pacha of the first class, or, as he is termed, of three tails, has the right to punish capitally any subordinate functionary. A pacha of two tails must in such a case go through the form of a trial. The lieutenant or deputy of the pacha is styled mutzelin. A waywode is merely the governor of a provincial town, or of one of the districts which do not belong to a pachalie, but form an appanage of some member of the reigning family. The sangiac beys are the governors of districts under the pachas. The chief check to their power is from the ulema, whose station is in the capital, and who explain both the political and religious part of the law.

Though Turkey has hardly any hereditary nobility, the emirs and sheriffs who can trace their genealogy to Mahomet, like the descendants of the celebrated viziers, Ibrahim Khan Oglou, and Achmed Kiuprili, enjoy certain privileges. Christians and Jews are regarded as inimical persons, to be governed by coercion. Walachians, Moldavians, and Servians, are considered tributary allies. The governors of these provinces are princes of the Greek religion, dependent on the Porte.

The imams or priests are a body altogether inferior to, and distinct from, the ulema, their duty being merely to perform public worship; but every law promulgated by the sultan, every declaration of war, must be sanctioned by a fetva, or act of approbation, from the mufti, who, in addition to other functions, has that of presenting annually to the sultan a list of persons to fill the two high judicial stations of kadileskar of Europe, and kadileskar of Asia. These officers remain in place only a year. The stambol effendi is chief judge at Constantinople. The mullahs are an intermediate order between the kadis and the kadileskar. The grand vizier is the official head of the administration of justice; but transmits questions to the regular courts. An appeal from a lower to a higher jurisdiction is unknown in this country: the kadi passes a sentence of fine, imprisonment, and even of death, without any restraint but an apprehension of complaint to his superiors. In many cases a decision is obtained only by bribery, and in others presents to the judges are made from time to time, to ward off

the injury that would attend upon justice. To counteract this oppressive system, the inhabitants of towns generally form themselves into an association, which makes a point of attending in court in the case of any suit carried on for or against its members, and of not withdrawing until the witnesses are examined. The people have also the right of naming certain officers called in the towns *ayams*, in the villages *kiayas*, who, in a case of grievance, are authorised to call together the principal inhabitants. Christians and Jews are also incorporated, but remain more at the mercy of the executive branch than their Turkish fellow subjects.

The religion of the Turks is that of the Mahometan sect of Omar, and the rule of faith the Koran. Their fasts are frequent and rigorous. The ablutions are also very frequent, being prompted by the warmth of the climate, and enjoined by the creed as necessary after a variety of occupations. Polygamy, though permitted, is seldom practised; but the rich keep concubines. The population seems to receive little or no periodical increase.

The personal appearance of the Turks is fine and striking: dark eyes, an aquiline nose, limbs in general well proportioned, are set off to advantage by a dress which forms a medium between the strait clothing of Europe and the flowing robes of Asia. Their gait is slow and stately, their mode of speaking clear and deliberate, and their whole air solemn and manly. Their character presents a curious mixture of good and bad; temperate in eating and drinking, and simple in dress, and full of veneration for their laws and usages, no country presents more frequent examples of insurrection, and the indulgence of violent passions. Their religious tenets inspire them with contempt for those of a different creed; their despotic government with a blind submission to their superiors; and, on the other hand, they are hospitable, in a high degree courageous, and exempt in general from artifice and adulation. The lower ranks are almost devoid of education. The lawyer must be skilled in the Koran; the divine learned in the law. Hence the compound functions of the *ulema*; hence also the mixed education of youths intended for these professions. They are sent from the common schools, or *mektebis*, to the medresses or colleges established at the imperial mosques of Constantinople and Adrianople, where they find teachers ignorant of the rudiments of science, but familiar with the Koran, and with the laws deduced from the sacred volume. The youths undergo examinations, and receive degrees, such as *sochta* (student), *muderrî* (head of a school), *naib* (secretary to a judge), *kadi* (judge), *mullah* (high judge), *kiabe molaki* (judge of Mecca), *istambol effendi* (magistrate of Constantinople), *kadilaskar* (military judge). Astronomy is here a fanciful system of judicial astrology; chemistry, achemy; and their grammar, rhetoric, and metaphysics, all equally remote from rational principles. Libraries and booksellers' shops are found hardly any where but in Constantinople, and their chief contents are oriental manuscripts. Statuary and painting are forbidden by their faith: with navigation, engineering, fortification,

or the art of casting iron, the Turks are also very imperfectly acquainted: nothing can be more awkward than their wheel carriages; and even the arts of embroidery and carpet weaving, in which they have had most success, discover little progressive improvement.

The public revenue of Turkey, derived partly from a capitation tax on Christians and Jews, partly from duties on tobacco and other articles of consumption, is about £3,000,000 sterling, and the objects to which it is applied are the army, the navy, the fortifications, and the household of the sultan. The army is composed of a variety of troops; first of a kind of feudal corps, commanded by *agas*, who have the investiture of certain fiefs called *Timars* and *Zaim*, held on condition of bringing into the field a specified number of horse and foot. The *sphas* are in general the sons of rich Turks, the expectants of the vacant charges of the *agas*. The *Janissaries*, a corps originally formed of Christians and prisoners of war, of late consisted entirely of Mahometans. The *delibaches* and *seltikars* are corps attached to a particular pacha, who, when in the field, act as irregular.

Of their military character, the following account has been given by a modern French writer:—'The Turks are a nation that is naturally warlike, whose armies are commanded by experienced generals, and are composed of bold and executive soldiers. They owe their knowledge of war, and their experience in tactics, to three national causes, two of which do credit to their intellects. In the first place they become inured to arms, from being bred to the profession from their earliest infancy; in the second, they are promoted upon the sole ground of merit, and by an uninterrupted gradation of rank; and in the third, they possess all the opportunities of learning the military art that constant practice and habitual warfare can afford. They are naturally robust, and constitutionally courageous, full of activity, and not at all enervated by the debaucheries of Europe, or the effeminacy of the east. Their predilection for war and enterprise grows out of the recollection of past victories, and is strengthened by the two most powerful incentives to human daring, viz. reward and punishment; the first of which is extremely attractive, because it is very great; and the other equally deterring, because it is rigorous in the extreme. Add to these the strong influence of a religion, which holds out everlasting happiness, and seats near Mahomet in heaven, to all who die fighting for their country on the field of battle; and which further teaches them most implicitly to believe that every Turk bears inscribed upon his forehead his fatal moment, with the kind of death he must submit to, and that nothing human can alter his destiny. When any thing is to be carried into execution, the order they receive is absolute, free from every species of intervention or control, and emanating from one independent authority. The power which is entrusted to their generals (like that of the Romans to their dictators) is brief and comprehensive, viz.—Promote the interests of your country, or your sovereign.' See *Essai sur la Science de la Guerre*, tom. i. p. 207.



The Turkish navy is inconsiderable, and seldom, even in time of war, amounts to fifteen or sixteen sail of the line. Their principal dockyards are at Mitylene, Stanchio, Sinope, and Constantinople. Their vessels are navigated chiefly by Greeks or Algerines, the Turks serving only as gunners.

Alstedius and other chronologists, indeed, trace the origin of the Turkish empire from an earlier period; viz. from the rise of Mahomet's imposture, A. D. 621. See MAHOMET and SARACENS. But though their power and their conquests rapidly increased after that period, yet Ottoman, or Othman, is generally ranked as their first emperor, and the commencement of his reign placed in A. D. 1297. From him Turkey is often styled the Ottoman empire. After conquering Syria, Cappadocia, and the greater part of Asia, he died A. D. 1326, in the twenty-ninth year of his reign, and was succeeded by his son Orchan, who took Barsa and made it the seat of his empire. He died in the thirty-first year of his reign, A. D. 1357, and was succeeded by his son Amurath I. He reigned also thirty-one years, according to Alstedius, and was succeeded, A. D. 1388, by his son Bajazet I., who was taken prisoner by Tamerlane. After an interregnum of six years he was succeeded by his son Soliman I., A. D. 1403, who was murdered in his seventh year, A. D. 1410, by his brother Moses, who reigned only three years, and was succeeded by his brother Mohammed I., A. D. 1413. Mohammed, or Mahomet I., transferred the seat of empire to Adrianople; and, after a glorious reign of eight years, died in 1421, and was succeeded by his son Amurath II., who, after having reigned thirty-one years, died in 1452, and was succeeded by Mahomet II., surnamed the Great, of whose reign we now proceed to give the history.

In 1453 the Turks made themselves masters of Constantinople, which from that time became the capital of their empire. Mahomet II., then sultan, treated the inhabitants with the greatest cruelty. In 1454 he entered Servia at the head of 20,000 men, and obliged the inhabitants to pay him an annual tribute of 40,000 ducats. On his return to Adrianople, Mahomet re-peopled the towns and villages about Constantinople with 4000 men and women whom he had taken; and going to that city built a palace eight stadia in compass. Next year a fleet was sent against the islands of Rhodes and Chios; but the attempt on both proved unsuccessful; however, the island Cos was reduced and some other places; after which the sultan, turning his arms towards Hungary, laid siege to Belgrade, which the celebrated John Hunniades obliged him to raise with considerable loss. He next set about the entire conquest of the Morea. The Grecian princes, among whom were two of the emperor's brothers, Thomas and Demetrius, were so terrified by the taking of Constantinople, and the great progress of the Turks, that they prepared to retire into Italy; upon which the Albanians seized on the country, choosing one Manual Cantacuzenus, a Greek, for their prince. Then falling on the Greeks who remained they made an offer to the sultan of the cities and fortresses, provided he would allow them to keep the open country.

At this time, however, the sultan chose rather to support the Greeks than to let the country fall into the hands of such barbarians; and, having defeated the Albanians, was content to accept of a tribute from the Greeks. But the danger was no sooner over than the Grecian princes revolted anew; upon which Mahomet entering the country with a powerful army, prince Thomas, with his family, fled to Italy; while Demetrius thought it most eligible to submit to the sultan, by whom he was carried away with many of the most considerable persons of Lacedæmon, Achaia, &c., where Turkish governors were appointed. 2000 families were also carried away from the Morea in order to be settled at Constantinople, and 2000 young men to be enrolled among the sultan's troops. Many cities at this time fell into the hands of the Turks, among which the principal were Corinth and Athens. The Greeks, however, still made some faint struggles, but all in vain; for, by the year 1459, the whole country was subdued, excepting some maritime places held by the Venetians; and prince Thomas was obliged finally to take up his abode at Rome, where he was lodged in the pope's palace and had a pension of 3000 livres a year allowed him. Mahomet now pursued his good fortune, and, having made war on the emperor of Trebizond, he subdued his dominions and put him to death. His career, however, was for some time stopped by Scanderbeg, the Epirote. This prince had already defeated an army of 12,000 Turkish horse, of whom only 5000 escaped the slaughter, and dispersed another, with the loss of their general and 4120 men killed on the spot. Encouraged by this success he laid siege to Belgrade which was now in the hands of the Turks; but, through the treachery of his scouts, his army was defeated, and 5000 of his men killed; upon which one of his generals, named Moses, went over to the Turks. Scanderbeg, not at all dispirited by this misfortune, prosecuted the war with the utmost vigor. His first enterprise was against his perfidious general Moses, who had been immediately put at the head of an army by the sultan. This army was by Scanderbeg totally destroyed, excepting about 4000 men; upon which Moses fell into such disgrace with the Turks that he returned to his old master, who forgave his treachery, and restored him to all his former posts. The bad success of Moses did not prevent Amesa, the nephew of Scanderbeg, from following his example. Mahomet received him kindly, and sent him with Ishak, bashaw of Constantinople, whom he entrusted with an army of 50,000 men against his uncle. Scanderbeg, with only 6000 men, retired towards Lyssa, a maritime city of the Venetians. The Turks pursued contrary to the advice of Amesa; and, being surprised by Scanderbeg, were utterly defeated with the loss of their camp, 20,000, or, according to others, 30,000 men killed on the spot, and the treacherous Amesa taken prisoner. With the like good fortune Scanderbeg defeated three other Turkish armies, one of 20,000, another of 30,000, and the third of 18,000 men. On this Mahomet sent against him an old experienced commander at the head of 40,000 chosen troops; but as he

likewise was able to achieve nothing, the sultan thought proper to conclude a peace with Scanderbeg in 1461. Mahomet, being thus freed from such a troublesome enemy, completed the conquest of the Greek islands; subdued Walachia, Bosnia, and Illyria, extending his empire nearly to the confines of Italy. But, as it was easy to see that no conquests would satisfy the Turkish ambition, the Venetians, who found themselves ill treated by their warlike neighbours, entered into an alliance with the Hungarians to repress the overgrown power of the Turks, and prevent the western parts of the world from being totally overrun by them; and into this alliance Scanderbeg was soon drawn, notwithstanding his treaty with Mahomet already mentioned. The Hungarians invaded the Turkish dominions on the west side, defeated some troops, and carried off 20,000 slaves; the Venetians invaded the Morea, where they made some conquests, but were soon obliged to abandon them: however they recovered the island of Lemnos; but, being defeated in two engagements at land, they were obliged to solicit assistance from France, Germany, and Spain. Having obtained considerable supplies from those parts, they again entered the Morea; but, meeting with still worse success than before, they applied for assistance to Matthias the son of John Hunniades king of Hungary. Matthias willingly made another incursion into the Turkish dominions, ravaged Servia, and carried off a vast number of prisoners with a great booty. In the mean time, Mahomet, fearing lest Scanderbeg should be declared generalissimo of the Christian forces, sent to him, desiring a renewal of the league between them. But, this being refused, the war was renewed with the utmost vigor. Many Turkish armies were sent against this hero; but they were utterly defeated and dispersed, till 1466, when by his death the sultan was freed from the most formidable enemy he had ever encountered. See SCANDERBEG. The death of Scanderbeg was followed by the entire reduction of Epirus and Albania. The Venetians in 1469 defeated the Turks in a pitched battle; but were driven out of Negropont, at that time the strongest city in Europe; after which they entered into an alliance with Ferdinand king of Naples, Louis king of Cyprus, and the grand master of Rhodes, at the same time that they sent ambassadors to Uzun Hassan king of Persia, in order to persuade him to attack the Turkish dominions on the east side. Mahomet did not lose his courage at the number of his enemies; but, having defeated the Persians, reduced the Venetians to such distress that they were obliged to conclude a treaty in 1479. In 1481 the war was renewed, and the city of Rhodes besieged, but without success; however, the city of Cephalonia was taken from the Venetians, Italy invaded, and the city of Otranto taken. This was the last of the exploits of Mahomet II., who died this year of the gout, and was succeeded by his son Bajazet II.

Under this prince a war commenced with the Mamelukes of Egypt; which, under his successor Selim I., ended in the total subjection of that country. See EGYPT. Bajazet, however,

greatly facilitated Selim's conquest by the reduction of Circassia, whence the Mamelukes drew their principal resources. Caramania and Croatia were totally reduced; the cities of Lepanto, Modon, and Durazzo, taken by the Turks, though the Venetians recovered Cephalonia; Syria on the east, and Moldavia on the west, were invaded and ravaged by the victorious armies of the sultan; till at last a peace was concluded with the European powers in 1503. The year 1509 is remarkable for a dreadful earthquake at Constantinople, which overturned a great number of houses, and destroyed 13,000 people; being also followed by an epidemic distemper, which carried off great numbers. About this time also the sultan, finding the infirmities of old age drawing on, and being desirous of passing the remainder of his days in quiet, resolved to resign the throne to his eldest son Achmet. But having engaged in this affair with too great precipitation, and before he had gained over the grandees, his second son Selim, whom he had made governor of Trebizond, hastily crossing the Euxine Sea, dethroned and put to death his father, in 1512.

This monster, who had not scrupled to sacrifice his father to his ambition, did not hesitate at establishing himself upon the throne by the death of his brother also. Accordingly, as Achmet, knowing he could be no where safe, resolved to stand on his defence, Selim with a powerful army marched against him; and, having defeated the few forces of his brother, took him prisoner and put him to death. Having thus secured himself, he marched against the Persians, whom he overthrew in a great battle: after which he took the city of Tauris; made some other conquests; and, having secured tranquillity on the east side of his dominions, turned his arms against Sultan Gauri of Egypt. His farther designs of conquest were frustrated by his death, which happened in 1519.

Selim was succeeded by his son Soliman II., surnamed the Magnificent, who proved no less ambitious and warlike than his father. Having defeated and killed the governor of Damascus, who had rebelled against him, he attacked the European princes with a design to extend his dominions as far to the westward as he possessed to the eastward of his capital. In 1520 he set out with a great army to conquer Hungary. The city of Belgrade was immediately invested, and in a short time taken. Rhodes also, being attacked by a great force by sea and land, was obliged to submit, after a most desperate resistance (see RHODES, and SOLIMAN II.), and Soliman entered the city in triumph on Christmas day 1522. His conquests for some time were stopped by a rebellion in Egypt; but, this being soon quashed, the war with Hungary was renewed in 1525. King Louis, having rashly engaged the Turkish army of 200,000 men with only 25,000, was utterly defeated, himself drowned in a ditch, and his whole army, excepting a few horse, cut in pieces. This defeat was followed by the surrender of Buda, which, however, the Hungarians retook in 1528; but in 1529 it was again taken by the Turks, and soon after both the Moldavians submitted to their



jurisdiction. The city of Vienna was then invested; but, after being reduced to the greatest straits, the sultan was obliged to abandon the siege by the coming on of the autumnal rains; which, however, he did not without barbarously massacring all his prisoners. The raising the siege of Vienna was followed by an entire repulse of the Turks from the German territories; on which Soliman, resolving to extend his dominions on the east, subdued the country of Georgia, and made himself master of the city of Bagdad; at the same time that his admiral, the celebrated Barbarossa, ravaged the coasts of Italy, and took the cities of Biserta and Tunis in Africa. But in 1536 he was obliged to retire before Charles V. of Spain, who retook the city of Tunis. Soliman, to revenge this disgrace, suspended for a time the war in Persia, to turn all his forces against Italy: but while this country was in danger of being totally overwhelmed, a Venetian captain having rashly taken and sunk some Turkish vessels, Soliman changed his design of attacking Italy into that of chastising the Venetians. However, after some trifling encounters, a peace was concluded in 1540. This year the war was renewed in Hungary; the transactions were very unfortunate for the Christians, and ended in the entire reduction of the kingdom to a Turkish province. The kingdom of France, being oppressed by its enemies, entered into an alliance with Soliman, who was now grown so powerful that the whole European powers seemed scarcely able to resist him. However, in 1565, he was baffled by the knights of Malta; and in 1566 an end was put to his ambition and his conquests by death.

Soliman was succeeded by his son Selim II., surnamed Mest, or The Drunken. Under him the empire at first lost nothing of its lustre; but in 1571 the maritime power of the Turks was almost entirely destroyed at Lepanto, where one of the most remarkable sea engagements mentioned in history took place. The Christian fleet was commanded by Doria the Venetian admiral; and consisted of upwards of 209 galleys and large ships, besides smaller craft; and the Turkish fleet consisted of 335 sail. The number of Turks slain were supposed about 32,000, besides 3500 prisoners. The galleys taken amounted to 161. Forty more were sunk or burnt; and of galliots, with other small vessels, about sixty were taken.

Notwithstanding the prodigious loss sustained by the Turks on this occasion, the confederates reaped but little advantage from this victory; and next year Kilij Ali Pasha, who had succeeded to the post of high admiral, fitted out a fleet of 250 galleys, with which he ravaged the coasts of Christendom wherever he came, and maintained his ground so well that the confederates could never gain the least advantage over him. The Turkish power from this time, however, began to decline. The progress of civilisation being much more quick among the western nations, and their improvements in the art of war very considerable, the Turks found it not only impossible to extend their dominion over Germany, but even a matter of some difficulty to withstand the power of the western princes. During the remainder of the reign of Selim II,

the war was carried on in Hungary with little advantage on either side; but under his successor, Amurath III., the Turks met with several severe checks from the Germans. Amurath III., reigned twenty years. In 1594 Mahomet III. having succeeded his father Amurath, murdered his nineteen brethren to secure himself on the throne; and caused ten of his father's wives and concubines to be thrown into the sea, lest any of them should prove with child. The emperor Rodolph II., having entered into a confederacy against him with the princes of Transylvania, Walachia, and Moldavia, defeated the Turks and their Tartar auxiliaries in several engagements, and took many cities; while so grievous a famine and plague raged in Hungary, that of 85,000 Tartars who had entered the country the year before, scarcely 8000 remained alive. This was followed by new misfortunes; so that in 1595 the Turks were entirely driven out of Transylvania, Moldavia, and Walachia.

Mahomet III. was succeeded by his son Achmet I., who died in 1617, leaving two sons, Othman II. and Amurath IV.: yet the throne was seized by his brother Mustapha I., who was deposed for heresy in 1623, and strangled in prison by the Janissaries in 1621. In 1621, under Othman II., the Turks first engaged in a war with Poland; but a peace was concluded the same year; the chief article of which was, that the Poles should have a free trade in the Turkish dominions, and that for this their merchants should pay 10,000 sequins. The Turkish affairs continued much in the same way till 1673, when a dreadful war broke out with Germany, Russia, and Poland, whose army was at that time commanded by the celebrated John Sobieski. The year before, hostilities had commenced, on account of the Poles having endeavoured to detach the Cossacks from their allegiance to the sultan. At this time the Turks were successful, through the dissensions which reigned among the Poles; and the latter were obliged to pay an annual tribute of 20,000 rix dollars, and to deliver up forty-eight towns and villages in the territory of Kamanieck. However, the articles of this treaty were never executed; for, in 1673, the states of Poland sent a letter to Kyoprihi Achmed Pasha, the vizier, informing him that they considered as null the conditions of the treaty, being concluded without their consent, and that they would rather suffer death than submit to the infamy of paying one farthing by way of tribute. On this the sultan, Mohammed IV., who had succeeded in 1649, after the murder of his father, Ibrahim I., determined to take a severe revenge on their perfidy, set out with a great army; but was entirely defeated with the loss of 20,000 men killed on the spot, all the baggage, 25,000 waggon loads of provisions and ammunition, and 2000 purses of money. Soon after this victory John was proclaimed king of Poland; but his subjects, jealous of his glory, refused to support him properly in prosecuting his advantage; so that, four years after, a treaty was concluded, by which the Poles for ever resigned their pretensions to Kamanieck and to the dominion of the Cossacks in Podolia.

But, though peace was thus made with Poland, the war was carried on very unsuccessfully with Russia. In 1678 an army of the Tartars was entirely cut in pieces or taken near the city of Cherin; which so intimidated another army of 40,000 Turks, who had waited for the arrival of the auxiliaries, that they threw away their arms, and fled without stopping till they had crossed the Bog. This defeat inclined the sultan to peace; but, the negotiations proving ineffectual, he in 1679 again sent a powerful army of 80,000 Turks, 30,000 Tartars, and 4000 Cossaks, under the command of the vizier, to retrieve his lost honor. This army, however, succeeded little better than the former; for the vizier was defeated in several engagements; and at last put to death on account of the bad success of the war. In 1684 the Venetians again declared war, while the Poles and Germans continued their hostilities with the utmost violence. The Turks were forced to yield to the superior fortune and valor of their adversaries; they were defeated in a great number of engagements, and lost many places of importance. In 1687 Mahomet IV. was deposed by the Janissaries, and succeeded by his brother Soliman III., an indolent prince who died in 1691. Mahomet IV. died in prison in 1693, and was succeeded by his brother Achmet II., who died in 1695, and was succeeded by his nephew Mustapha II. who defeated the imperialists at Temeswar, and made war with success against the Venetians, Poles, and Russians; but was deposed and died in 1703. He was succeeded by his brother Achmet III., who was deposed in 1730, and succeeded by his nephew Mahomet V., the son of Mustapha II. But to return to public affairs. Turkish affairs seemed to be totally going to wreck; when, in 1688, they were retrieved by the new vizier Achmed Kyoprili, a man of great skill and experience in war, as well as of the most upright character. Having roused the enthusiasm of the people, they flocked in great numbers to his standard; after which, having reformed many abuses both in the civil and military departments, he led them against the enemy. The good effects of his reformation were evident. Great numbers of the enemy were cut off, and almost all the important places taken which had been lost before; when in 1691 he was defeated and killed by the Germans at Islankamen. After his death the Turkish affairs again fell into disorder; and, though the utmost efforts were used by succeeding viziers, no progress could be made; and in 1697 a prodigious overthrow was given them by prince Eugene at Zenta.

At last, in 1698, all parties being weary of such an expensive and ruinous war, a pacification took place at Carlowitz, but on different terms with the different nations who had been at war with the Turks. The emperor made a truce for twenty-five years, upon condition that all Transylvania should be resigned to him; the city of Temeswar was to be restored to the Turks, and the navigation of the Teisse and Maros rivers free to both nations; that the country between the Danube and the Teisse, called Backback, remain in the emperor's

hands; that the boundary of the eastern part of Hungary, belonging to the emperor, should be a right line drawn from the mouth of the Maros towards the banks of the river Teisse to the mouth of the Bossut, where it falls into the Saave; that towards the south, the Saave should part the Turkish from the Imperial limits, till it receives the Unna; and that no new castles besides Belgrade and Peterwaradin should be erected, or old ones fortified, any where within these boundaries. The Russian ambassador made a truce only for two years, upon the footing of each party possessing what he had taken. The Poles made a truce on the like terms with the sultan; namely, that they should have Kaminiack, Podolia, and Ukrania, restored to them in the same extent as possessed by them before sultan Mohammed's first expedition into Poland; and on the other hand resign Soczava, Nemoz, and Soraka, in Moldavia, to the Turks. The Venetians obtained these conditions:—that all the Morea, as far as Hexamilos, should belong to them; and that the firm land, with Naupactum (or Lepanto), Prevesa, and the castle of Romania which had been demolished, should be restored to the Turks; that the bay of Corinth should be common to both, and the Venetians possess Lenkade with the adjacent islands. The yearly tribute paid by the islands in the Archipelago to the Venetians was to be abolished; and Zakynth to be declared free from the like burden by the Turks. In Dalmatia, Knin, Cing, Kiklut, Verlika, Duare, and Vergoraz, were to be left to the republic, and fixed as the boundaries of their dominions on that side. The Ragusians were to continue free, and the Venetians to retain the castles of Castelnovo and Risano, with what they possessed in the neighbourhood. Both parties were allowed to fortify their borders with new fortresses; or to repair those which were decayed, excepting Naupactum, Prevesa, and the castle of Romania.

From the conclusion of the peace of Carlowitz to 1769, nothing remarkable occurs in the Turkish history, excepting that Mustapha III., the son of Achmet III., succeeded his father in 1757. He was a weak prince, and drained the treasury. But the Turks recovered the Morea from the Venetians by the treaty of Passarowitz. See VENICE. Their war with the Russians under Peter the Great has been taken notice of under the article RUSSIA; and those afterwards with PERSIA, under that article. None of these indeed were of any great consequence; but in 1769 a war commenced with Russia, which threatened the Ottoman empire with destruction, and which has given it such a severe check as it can scarcely recover. The origin of this war is given under the article POLAND; and, during the course of it, an almost uninterrupted train of success attended the Russian arms. About the end of March, 1769, a body of Russian troops made themselves masters of the important fortress of Asoph, at the mouth of the Don.

In the end of April prince Gallitzin, commander-in-chief of the Russian army on the frontiers of Poland, passed the Niester, hoping to take the fortress of Choczim by surprise; but being disappointed he was obliged to return.











Drawn by J. Ashbourn.

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Near the beginning of July, however, he again passed that river, and on the 13th attacked and defeated the van of the grand vizier's army, consisting of about 50,000 or 60,000 men. Of the fugitives 13,000 entered Choczim; which was next day invested by the Russians: but they were at last obliged to raise the siege and repossess the Niester; which they could not effect without considerable loss. In the mean time both the Ottoman and Russian courts were displeased with the conduct of their generals. The Turkish grand vizier was deprived of his command, and afterwards beheaded; and was succeeded by Moldovani Aga Pacha, a man of a bold and enterprising spirit. On his first taking the command of the army, finding it impossible to subsist where he was, he attempted to force a passage over the Niester; but, being three times repulsed with great loss, he made a precipitate retreat towards Bender, at the same time drawing the troops out of Choczim, which the Russians immediately took possession of. Prince Gallitzin was now superseded by general Romanzow, who took the command of the army on the 29th of September. Soon after his arrival he received news of the success of general Elmpy, who, with a body of 10,000 men, had reduced the province of Yassy. He invested Bender, but, finding the season of the year too far advanced, he soon withdrew his troops, and put them into winter quarters. This first campaign had proved so unpropitious to the Turkish affairs, that the court would gladly have concluded a peace if they could have obtained it upon honorable terms; but the Russians insisting upon the entire cession of Moldavia and Walachia, as a preliminary article, the negotiations came to nothing. A new campaign was therefore resolved on; and this proved still more unsuccessful than before. The grand Russian army under general Romanzow passed the Niester in May 1770; and, having assembled at Choczim on the 3d of June, marched towards Pruth; at the same time their second army, commanded by general Panin, arrived before Bender. The plan of operation was, that the latter should form the siege of Bender, and Romanzow should cover it. On the 18th of July, general Romanzow attacked an army of 80,000 Turks and Tartars commanded by the khan of Crimea, and strongly intrenched on an almost inaccessible mountain, forced their intrenchments, and obliged them to flee in the utmost confusion, leaving an immense quantity of ammunition and provisions, &c., in their camp; which they totally abandoned to the victors. After this victory, the Russian general pushed on towards the Danube; and on the 2d of August attacked another Turkish army, commanded by the grand vizier in person, and totally defeated it, making himself master of their camp, ammunition, 143 pieces of cannon, and above 7000 carriages, loaded with provisions. The loss of the Turks on this occasion was not reckoned less than 40,000 men, and some accounts raised it to 60,000. During the course of this summer, also, the fortress of Kilia Nova, at the most northerly mouth of the Danube, surrendered by capitulation; and likewise that

of Ackerman, or Bialogorod, near the mouth of the Niester. Bender was taken by storm on the 27th of November, and the Russians, enraged at the obstinate resistance they met with, made a terrible slaughter of their enemies. It was computed that 30,000 Turks perished on this occasion.

The fortress of Brailow, situated on the north side of the Danube, was invested on the 26th of September, and the garrison were so much intimidated by the taking of Bender, that they abandoned the place, and most of them were drowned in crossing the river. During this campaign, it was reckoned that the Russians took 1000 pieces of cannon from their enemies. —This year also a Russian fleet of sixteen or eighteen ships entered the Mediterranean, and landed a body of troops on the Morea. These being joined by the Greeks, committed great cruelties on the Turks, and made themselves masters of almost the whole country. At last, however, the Porte, notwithstanding their bad success in other parts, found means to send a force into the Morea sufficient to overpower the Russians. The Greeks now suffered in their turn; and the Russians, hearing that a Turkish fleet had passed the Dardanelles, abandoned the Morea, and sailed to meet their antagonists. A battle ensued, in which the Turks were defeated; and having imprudently retired into a neighbouring harbour, they were next day entirely destroyed by the Russian fire ships, except one ship of sixty-four guns, which was taken. This fleet consisted of fifteen ships of the line, from ninety-six to sixty guns, three large frigates, and seven large armed vessels, besides galleys. After this victory, the Russian fleet blocked up the mouth of the Dardanelles, interrupted the Turkish trade, prevented the carrying of provisions to Constantinople by sea, and raised contributions from most of the islands in the Archipelago.

In 1771 matters did not at first go on so successfully on the part of the Russians. On the side of the Danube, they were obliged to keep on the defensive. Another army, under prince Dolgorucki, had better success; they reduced the whole peninsular of Crim Tartary in less than a month, though defended by an army of 50,000 men.—During these transactions the Turks made themselves masters of the fortress of Giorgiow; which enabled them to become so formidable on the side of Walachia, that prince Repnin durst not attack them. Upon his refusal to do so, he was deprived of his command; which was given to general Essen. On the 17th of August, he attacked the Turkish intrenchments; but, after a desperate engagement of four hours, was defeated with the loss of upwards of 3000 men. This was the only engagement of any consequence in which the Turks had proved victorious since the beginning of the war; and, after it, their usual bad fortune attended them. In consequence of their victory, they determined to winter on the north side of the Danube, which would have been of the utmost service to them; and with which view they considerably reinforced their army in Walachia. But general Romanzow, by a train of masterly dispositions, not only thwarted all their schemes, but surprised

them on their own side of the river. They had divided their army into two great bodies, which were stationed in the nearest and most important posts on the Turkish side of the Danube. On the 20th of October, one of these bodies was surprised at Tuliza by general Weisman, and another at Maczin by general Milarodowits. The event was the same in both places. The intrenchments were forced, the Turks totally routed, and their artillery, stores, and magazines, taken, together with their towns and castles. Next day general Weisman attacked the grand vizier himself, with the like success. The intrenchments were forced, a vast quantity of artillery taken, and likewise the town and castle of Babadagh; while the vizier, with the remains of his army, fled thirty miles to seek refuge at Mount Hemus. A few days afterwards general Essen defeated another body of Turks, and retook the fortress of Giorgiow, driving the enemy totally out of Walachia. The Russian fleet this year spread ruin and desolation through the defenceless islands of the Archipelago and the coasts of Asia, striking terror into the city of Constantinople itself. A dreadful pestilence raged this year in the Turkish army; and in autumn broke out at Moscow, where it destroyed vast numbers.

The affairs of the Turks were now in such a desperate condition, that they very eagerly sued for peace. The only conditions on which this could be obtained, however, were, that the Crimea, Budziac Tartary, and all that vast tract of country on the coast of the Black Sea, as far as the north shore of the Danube, should continue for ever under the dominion of Russia; that the Russians should enjoy an unlimited freedom of navigation on the Black Sea, together with the possession of the city of Asoph, on the mouth of the Don; and that a sum of money should be paid them by way of indemnification for the expences of the war. These terms, however, were rejected; and the negotiations, which continued through the whole year 1772, at last came to nothing. The commissioners on both sides retired from Bucharest, the place where the congress was held, on the 22d of March 1773.

For some time a desultory kind of war was carried on between detachments from the two armies. But as this was very prejudicial to the Russians, who could not be so easily recruited as the Turks, about the middle of June, Romanzow prepared for passing the Danube by the grand Russian army, consisting of 87,000 men: which, however, he did not accomplish till the 24th; when he marched with his army, in large divisions, towards the city of Silistria. He was terribly harassed on his march by large bodies of the Turkish cavalry, of whom the grand vizier had detached 27,000 for this purpose. At last, however, they arrived before the city, which was strongly fortified, and defended by a body of troops consisting of about 24,000 men. On the 29th of June, this body was defeated by general Weisman, who commanded the van of the Russian army, and forced to retire into Silistria. The grand vizier then detached 50,000 men to the relief of the place: upon this the Russians found it necessary to retreat; which was not ac-

complished without very great difficulty and loss. In this retreat general Weisman was killed, and the army left all their magazines behind them.

Many other severe conflicts happened this campaign, which proved less glorious to the Russians than any of the former ones. In 1774, however, their arms were attended with better success. On the 11th of January 1774, the sultan Mustapha III. died in his seventeenth year, and was succeeded by his brother Achmet IV. the present sultan, although he left four sons, whom Achmet, with more than usual humanity, only kept in confinement. Romanzow's army was reinforced by 40,000 men; and, on the night between the 16th and 17th of June, passed the Danube in spite of all opposition. A continued series of engagements then happened between the Russian generals and different bodies of the Turks. In these the latter were always defeated; and at last became so much dispirited, that a body of 40,000, or, according to some accounts, of 70,000 Turks, fled at the first sight of a body of their enemies greatly inferior in number, leaving behind them all their tents and baggage, with a fine train of brass artillery. From this time, disorder, mutiny, and dismay, seized all the Turkish armies, and they absolutely refused to face their enemies, and the ministers of state were obliged to furnish them with vessels for their transportation into Asia. According to some accounts, no fewer than 140,000 of the Turkish troops deserted in this manner. Even in the grand vizier's camp, at Schunla, matters went on in the same manner. He was abandoned by his whole cavalry; his European and Asiatic troops quarrelled, and cut one another to pieces before his face; and, in short, the vast army he commanded was reduced almost to nothing. The Russian general did not fail to take advantage of these misfortunes. He placed the different divisions of his army in such advantageous situations, that he totally cut off all communication between the Turkish camp and every mean of subsistence. The unfortunate vizier, therefore, was obliged at last to submit to the terms which Romanzow dictated to him. The principal articles were, the independency of the Crimea; the absolute cession of Kilburn, Kerche, and Jenickal, and all the country between the Bog and the Nieper; a free navigation in all the Turkish seas, in which was included the passage through the Dardanelles, with all the privileges and immunities which were granted to the most favored nations. Russia gave up all the conquests, except Asoph and Taganrock. There were, besides, several stipulations in favor of the inhabitants of Moldavia and Walachia, and the Greek islands which were restored by Russia.

Soon after this period an extraordinary alarm was excited at the Porte by the sudden appearance of a new prophet in Upper Asia. This man, whose name was Sheik Mansour, pretended that he was predestined by the eternal and immutable decrees of Heaven to fill up the measure of divine revelation to mankind; and that, as he was to be the last, so he was the greatest of the prophets. The scene of his ministry was in the wide and desolate regions on the



borders of the Caspian Sea; and though the first rumor of his proceedings represented him as at the head of a multitude of armed enthusiasts, ready to overturn the established government and religion of Mahomet, it was soon discovered that all the military fury of his zeal was directed against the Christians. He had even influence enough to form a combination of all the nations of Caucasian Tartars against the Russians, which was certainly of some service to the Turks in that war which the empress Catherine was now meditating against them. In the mean time, while this war was impending, the most formidable rebellion broke out in Egypt, the granary of the Turkish empire (see EGYPT); but it was, after a long, bloody, and dangerous war, almost suppressed by the wise conduct and intrepid bravery of Hassan Bey, the Captain Pacha or grand admiral, who, at the age of seventy, fought with all the ardor of youth, and all the skill of the most consummate general. That veteran, however, was recalled before he was able to carry all his patriotic designs into execution, that he might aid the divan with his counsel, in the critical situation into which the empire was brought by the claims of the court of Russia. The result of the deliberation was a precipitate declaration of war against that court, contrary to the better judgment of the old Pacha. The war commenced in autumn 1787, and the hordes of Tartars which were first brought into the field, headed by the new prophet, were every where defeated by the superior discipline of the Russian troops commanded by prince Potemkin. Some enterprizes which were undertaken by the Turks against the island of Tamen and the Crimea were attended with as little success as the attempts of the Tartars; while the emperor Joseph declared to the Porte that he would assist his ally the empress of Russia with an army of 80,000 men. Four Austrian armies were accordingly assembled; one at Carlstadt in Croatia, under general de Vins; another at Peterwaradin in Hungary, under general Langlois; a third on the borders of Lithuania, under general Febris; and the fourth in the Bucovine, under the prince of Saxe Cobourg. Two other generals, ten lieutenant-generals, and thirty major-generals, were all ordered to prepare for active service in the frontier armies. If any thing had been yet wanting to show the fixed determination of the court of Vienna, the sending general Alvinzi to act in and observe the conduct of the Russian armies during the war, and the receiving a Russian officer of equal rank to act the same part in the Austrian, would have been alone a sufficient explanation. The war between the Turks and Austrians was carried on with various success. At first the advantage was evidently on the side of the Ottomans, and Joseph II. acquired no warlike renown. His declared purpose was to get possession of Belgrade; from which, however, his enemies repulsed him with disgrace. The prince of Saxe-Cobourg in his department of the war displayed indeed prodigies of valor; but, being opposed to a superior force, he was long obliged to act only on the defensive. At length, being joined by a body of Russian forces under general Soltikow, preparations were made for

commencing in form the siege of Choczim, which was surrendered to the allied armies on Michaelmas day 1788, after a defence which would have done honor to the ablest general in Europe. Still, however, success seemed to lean to the Turks. The grand vizier made a sudden incursion into the Bannat, and spread consternation and dismay to the very gates of Vienna. The Austrian affairs seemed approaching to a very alarming crisis. The first campaign of an invasive war had already produced an impression on the territory of the invader.

In this situation of affairs Marshal Laudohn was with some difficulty drawn from his retirement to take the command of the army in Croatia; and under his auspices fortune began to smile on the Austrian arms. He quickly reduced Dubezca and Nevi, though they were both defended with the most obstinate bravery. He then sat down before Turkish Gradisca; but, the autumnal rains coming on with such violence that the Save overflowed its banks, he was compelled to raise the siege. During this period the war in the Bannat raged with the utmost violence; torrents of blood were shed, and much desperate valor, and many brave actions performed on both sides, while a great part of that unfortunate country suffered all the desolation that fire and sword could inflict. The inhabitants were objects of commiseration; but the injustice with which the emperor had commenced the war made his personal losses be considered as the just reward of his conduct. Hitherto the Russians had hardly entered into the war; but at last they began to act with vigor both by sea and land. They experienced however a very general coldness with respect to their claims, pretensions, and designs, in almost all the courts of Europe. The court of London prohibited British seamen from entering into foreign service, and declared its resolution to observe the strictest neutrality. The united provinces of Holland pursued the same line of conduct. In the mean time a vast Russian army, estimated at 150,000 men appeared on the banks of the Bog, adjoining to the confines of Poland, Turkey, Tartary, and on the way to the Black Sea, under prince Potemkin and general Romanzow; assisted by prince Repnin, general Soltikow, and other commanders. This great force was supported by a train of 137 pieces of artillery, besides a vast park of heavy battering cannon and mortars, destined for the siege of Oczakow; and furnished with an exuberance of powder, balls, shells, and military machines. After the most obstinate defence Oczakow was taken on the seventeenth of December 1788, and the governor basha graced the triumphant return of prince Potemkin to Petersburg. In the mean time Russia found herself attacked by a new and formidable enemy in the Swedish monarch, of whose exploits we have given an account elsewhere (See SWEDEN); and by his interference her conquests were certainly retarded.

Marshal Laudohn renewed his attempts upon Gradisca as soon as the season would permit, and after a brave defence it fell into his hands. This with some other successes roused the emperor from his inactivity, and made him seriously determined upon the attack which he had long

meditated upon Belgrade. The enterprise was entrusted to Laudohn, who, with that good fortune which seemed constantly to attend him, made himself master of the place in less than a month. The rest of the campaign was little else than a succession of the most important successes; and a circumstance that did not a little contribute to this was the system adopted by the Austrians and Russians, of suffering the Turkish troops to march out of the several places they garrisoned without molestation. Accordingly, while one detachment of general Laudohn's forces took possession of Czernitz in Walachia, another made itself master of Cladova in Servia. Bucharest, the capital of the former of these provinces, fell without opposition into the hands of prince Cobourg; while Akerman on the Black Sea was reduced by the Russians; and Bender surrendered to prince Potemkin, not without suspicion of sinister practices, on the 13th of November. In 1790 the emperor Joseph II. died, and his successor Leopold II. showed a desire for peace. After the reduction of Orsova, therefore, which happened on the 16th of April 1790, the war was carried on with languor on the part of Austria; and in June a conference was agreed upon at Reichenbach, at which the ministers of Prussia, Austria, England, and the United Provinces assisted, and at which also an envoy from Poland was occasionally present. After a negotiation, which continued till the 17th of August, it was agreed that a peace should be concluded between the king of Hungary and the Ottoman Porte; that the basis of this treaty should be a general surrender of all the conquests made by the former, retaining only Choczim as a security till the Porte should accede to the terms of the agreement, when it was also to be restored. Catherine was thus deprived of an ally, but still she continued the war. On the 22d of December 1790 the fortress of Ismail was taken by storm by general Suwarrow; and it is said that the siege and the capture did not cost the Russians fewer than 10,000 men. The most shocking part of the transaction is, that the garrison (whose bravery merited, and would have received from a generous foe the highest honors) were massacred in cold blood by the merciless Russians, to the amount of, by their own account, upwards of 30,000 men; and the place was given up to the unrestrained fury of the brutal soldiery. After this bloody scene, the Russians went into winter quarters; the vizier retired towards Constantinople, and on his return fell a sacrifice to the sanguinary policy which has long disgraced the Ottoman counsels.

The campaign of 1791 opened on the part of Russia with the taking of Maczin, on the 4th of April, by prince Gallitzin; and in a subsequent victory on the 12th by the same general, in the neighbourhood of Brailow, the Turks lost not fewer than 4000 men and upwards of 100 officers, besides many pieces of cannon. On the 14th the Russian arms experienced a check, by which they lost about 700 men, and were obliged to relinquish the intention of besieging Brailow. After reinforcing this place, the vizier proceeded to the banks of the Danube near Silistria; and, by a bridge which he threw across the river, his

advanced posts were enabled to make incursions on the opposite side. The ability of the vizier and the valor of the Turks were however exerted in vain against the discipline and experience of European armies. In June 15,000 Turks were defeated by a party of cavalry under general Kutusow. On the 3rd of July the fortress of Anape was taken by general Gudowitch, and the garrison, of 6000 men, made prisoners. This event was followed, on the 9th of the same month, by a signal victory which prince Repnin obtained near Maczin over a body of 70,000, the flower of the Turkish army. The Ottomans left upwards of 4000 dead upon the field of battle, and lost their entire camp equipage, colors, and thirty pieces of cannon. The Russians are said to have lost only 150 men killed, and between 200 and 300 wounded. At last peace was restored between the Porte and Russia, principally through the mediation of Great Britain and the northern powers. Catherine II. confined her views at length to the possession of Oczakow, with the district extending from the Bog to the Neister, and even then providing for the free navigation of the latter river. These terms, considering the ill success of the war, cannot be accounted very disadvantageous to the Porte, who has lost a fortress more useful for the purpose of annoying Russia than for defending their own territories; but certainly of considerable importance to Russia, which by this cession, has secured the peaceable enjoyment of the Crimea, the inhabitants of which are certainly highly indebted to the late empress, for the measures she adopted for their improvement and civilisation, by the establishment of schools, academies, &c. See TARTARY.

Nothing very important either to Turkey or the world has occurred in the history of this empire since the peace with Russia which we have mentioned. The Porte has been alternately at war with Great Britain and with France; but in neither contest has she acquired either honor or territory. The Turks declared war against the Russians on the 30th of December, 1806, urged thereto by French intrigue; and our famous Fox administration attempted what they probably meant as a diversion in favor of the Russians. After Buonaparte compelled the feeble emperor Alexander to ratify the treaty of Tilsit, he encouraged for his own purposes the war between Russia and Turkey; in which however nothing decisive on either side occurred, and which was happily ended before the tyrant's grand attack on Russia.

The only remarkable fact therefore with respect to Turkey which we have still to record is the revolution which placed Mustapha IV. on the Ottoman throne. In the spring of the year 1807 a spirit of revolt appeared among the janizaries in the grand vizier's camp, and in garrison at the Dardanelles. On the 25th of May the troops in garrison in the various castles of the Dardanelles, accounted for their insubordination by objecting to the European uniform, the new tactics, &c. Hali Aga, commandant of Madischiabarna on the Asiatic shore, was put to death. Indsche Bey, commandant of the entrance of the Black Sea, escaped the



same fate only by flight. The Reis effendi coming at that time to inspect that post, the janizaries accused him as one of the patrons of the nizam gedé. He attempted to escape; but he and his attendants were all sacrificed. He was particularly disliked, as he had promised to raise the pay of the janizaries on condition of their submitting to the new discipline, and this promise was never performed. Other circumstances contributed to excite and increase their rage, and they determined with vigor and foresight to overthrow all their enemies. The sultan Selim for a time determined to defend himself, and troops and ammunition, &c., were brought to the seraglio. Soon after, the Mufti, the Seimen basche, &c., joined the revolted janizaries. A formal council was held, in which it was proposed to request the grand seignior to abolish the new discipline, &c. Selim thought he should be able to stop the insurrection, by sending the heads of Mahmad, Tersana Emin, Haggai Ibrahim, &c., to the Emeldan, where the janizaries were in force. In this, however, he was disappointed. The janizaries were more enraged than ever. They admired and lamented Mahmad effendi, and demanded the head of the Reis effendi, then in the grand vizier's camp. The janizaries searched every where for those ministers who had countenanced and promoted the adoption of the European discipline, and fourteen of them they found and massacred. At this time Selim sent a letter in his own hand, abolishing for ever, and execrating the nizam gedé; but this the revolted troops would not now accept. The deposition of the grand seignior was determined on. Mustapha IV. born 7th of September, 1799, eldest son of sultan Achmet IV. set aside in 1789, was called to the throne. The solemn invitation to Mustapha to ascend the throne was made on the 29th of May. The ceremony of investing him with the sabre of the Prophet took place on the 3d of June. According to the ancient and approved custom of this barbarous empire, Selim, the deprived sultan, was put to death by his own nephews, that he might not disturb the tranquillity of the new sovereign Mustapha IV.; at whose feet it is said he threw himself, and kissed the border of his garment, after which he submitted to his fate with the feelings of a true Mussulman.

With the wars of the French revolution the Turks cautiously avoided interfering, until forced to take up arms by the invasion of Egypt in 1798. This contest was closed by the aid of Britain, but the power of the Porte was again threatened by a war with Russia, which commenced in 1809, and terminated in 1812, by the cession to Russia of Bessarabia and of part of Moldavia. A fresh war however broke out

between the powers in 1828. The Turks, in this case, behaved with undaunted bravery, and disputed every inch of ground, till the enemy had actually arrived at Adrianople, where a treaty of peace was signed, September 14th, 1829, the conditions of which were highly favorable to Russia.

**TURKEY IN ASIA.**—Since the taking of Constantinople Turkey has been regarded as a European state; yet still the centre of its power may be considered as placed in Asia Minor and Syria. Amid the falling fortunes of the empire, its dominions in Asia, however, have been greatly circumscribed. Its boundary to the eastward is formed by a varying line among the mountains of Armenia and Kurdistan, and the river courses of the Euphrates and Tigris. This tract has often afforded the debateable ground between Persia and Turkey, in which the rulers of each, according as fortune favored them, pushed forward their own frontier, and drove back that of the other. At present it has become nearly independent. Bagdad and Bassora scarcely own the supremacy of the Porte. Western Arabia might at one time be considered almost as a Turkish province, including the holy cities of Mecca and Medina, and the ports on the Red Sea as far as Mocha. But the growth of Wahabite power has put a complete period to her empire in Arabia. She cannot now even send an armed caravan to Mecca. Asiatic Turkey is therefore reduced to Asia Minor and Syria, including Palestine. The population of this territory is estimated at 10,000,000, occupying a surface of 470,400 square miles. The character and policy of the government is the same as that of Turkey in Europe; and as the countries which compose Asiatic Turkey bear little resemblance to each other, except in the common circumstance of being united under this barbarous empire, their topographical details are best given under separate heads.

In AFRICA, during the height of the Ottoman power, its dominion was nearly as extensive as in the other two quarters of the globe. Not only Egypt, but the Barbary states of Tripoli, Tunis, and Algiers, were tributary to it, and the ports on the Red Sea also, as far as Masuah, were in the hands of the Turks. At present, however, this power can scarcely be said to have any footing on this continent. Britain indeed drove the French out of Egypt, and Mahommed Ali, appointed pacha of that country, succeeded in annihilating the power of the Mamelukes. He himself, however, has now set up an independent government, and, though all the other parts of Africa acknowledge a nominal supremacy, they are in point of fact independent: and will be found therefore described as independent states.

**TURKOIS, n. s.** Fr. *turquoise*, from turkey. A blue stone, formerly numbered among precious stones, but discovered to be a bone impregnated with cupreous particles.

Those bony bodies found among copper ores are tinged with green or blue: the *turcois* stone, as it is commonly stiled by lapidaries, is part of a bone so tinged. Woodward.

**TURK'S ISLANDS**, a cluster of small islands among the Bahamas, the largest situated in long. 71° 0' W., lat. 21° 20' N. They belong to the British, and are the most south-east of all the Bahama Islands. There is an anchorage, but no harbour.

**TURM, n. s.** Lat. *turma*. A troop. Not in use.

Legions and cohorts, *turns* of horse and wings.

*Milton.*

**TURMERIC** (*terra merita*), *curcuma longa*, is a root brought to us from the East Indies. Bertholet had an opportunity of examining some turmeric that came from Tobago, which was superior to that which is met with in commerce, both in the size of roots and the abundance of the coloring particles. This substance is very rich in color, and there is no other which gives a yellow color of such brightness; but it possesses no durability, nor can mordants give it a sufficient degree. Common salt and sal ammoniac are those which fix the color best, but they render it deeper and make it incline to brown: some recommend a small quantity of muriatic acid. The root must be reduced to powder to be fit for use. It is sometimes employed to give the yellows made with weld a gold cast, and to give an orange tinge to scarlet; but the shade the turmeric imparts soon disappears in the air. Mr. Guchliche gives two processes for fixing the color of turmeric on silk. The first consists in aluming in the cold for twelve hours a pound of silk in a solution of two ounces of alum, and dyeing it hot, but without boiling, in a bath composed of two ounces of turmeric and a quart (measure) of acetocitric acid, mixed with three quarts of water. The second process consists in extracting the coloring particles from the turmeric by acetocitric acid, in the way described for Brasil wood, and in dyeing the silk alumed as already mentioned in this liquor, either cold or only moderately warm. The liquor is rendered more durable by this than by the former process. The first parcel immersed acquires a gold yellow; the color of the second and third parcels is lighter, but of the same kind; that of the fourth is a straw color. Mr. Guchliche employs the same process to extract fine and durable colors from fustic, broom, and French berries; he prepares the wool by a slight aluming, to which he adds a little muriatic acid. He seems to content himself in these cases with vinegar or some other vegetable acid, instead of his acetocitric acid, for the extraction of the color; he directs that a very small quantity of solution of tin should be put into the dye-bath.

**TURMOIL**, *n. s. & v. a.* Derived by Skinner from Fr. *tremouille*, a mill-hopper; more probably derived from *moil* to labor.—Johnson. Trouble; disturbance; harassing uneasiness: to weary, trouble; harass.

It is her fatal misfortune, above all other countries, to be miserably tossed and *turmoiled* with these storms of affliction. *Spenser.*

He seeks, with torment and *turmoil*,  
To force me live, and will not let me die. *Id.*

Blinded greatness ever in *turmoil*,  
Still seeking happy life, makes life a toil. *Daniel.*

Having newly left those grammatic shallows, where they stuck unreasonably to learn a few words, on the sudden are transported to be tost and *turmoiled* with their unballasted wits in fathomless and unquiet deeps of controversy. *Milton.*

Haughty Juno, who with endless broil  
Did earth, and heaven, and Jove himself *turmoil*,  
At length atoned, her friendly power shall join.

*Dryden.*

**TURN**, *v. a., v. n., & n. s.*

**TURN'BENCH**, *n. s.*

**TURN'COAT**,

**TURN'ER**,

**TURN'ING**,

**TURN'INGNESS**,

**TURN'PIKE**,

**TURN'SICK**, *adj.*

**TURN'SPIT**, *n. s.*

**TURN'STILE**.

round; change; alter; reverse; translate; transfer; betake; also (metaphorically) to infatuate; make mad; agitate in mind; taking *away, back, off, over*, to, as prepositions: as a verb neuter to move round; change posture; move from place to place; deviate; alter; be changed; change sides or mind; depend on; taking *away* and *off* as prepositions: a turn is a winding; meander; change; course; occasion; convenience: 'by turns' is by course, or one after the other: turnbench is a kind of lathe: turncoat, a name of reproach for a renegade: turner, he whose trade is turning: turning, in a general sense, is winding; flexure: the elegant noun substantive corresponding: turnpike, a gate (once formed of turning bars armed with pikes) that obstructs the road: turnsick, vertiginous; giddy: turnspit, man or dog that turns a spit: turnstile, a turnpike in a foot-path.

My lords, *turn in*, into your servant's house.

*Gen. xix. 2.*

*Turn* from thy fierce wrath. *Exodus xxxii. 12.*

I will send my fear before thee, and make all thine enemies *turn* their backs unto thee.

*Id. xliii. 27.*

God will *turn* thy captivity, and have compassion upon thee. *Deuteronomy xxx.*

*Turn* the council of Ahitophel into foolishness.

*2 Samuel xv.*

Disdain not me, although I be not fair:

Doth beauty keep which never sun can burn,

Nor storms do *turn*?

*Sidney.*

So nature formed him, to all *turningness* of sleights; that, though no man had less goodness, no man could better find the places whence arguments might grow of goodness. *Id.*

Diogenes' dish did never serve his master for more *turns*, notwithstanding that he made it his dish, cup, cap, measure, and water-pot, than a mantle doth an Irishman. *Spenser.*

An admirable facility musick hath to express and represent to the mind, more inwardly than any other sensible mean, the very standing, rising, and falling; the very steps and inflections every way; the *turns* and varieties of all passions whereunto the mind is subject. *Hooker.*

They *turned* weak people and children unable for service out of the city.

*Knolles's History of the Turks.*

Quick wits are more quick to enter speedily, than able to pierce far; like sharp tools, whose edges be very soon *turned*. *Ascham.*

She would have made Hercules *turn* the spit, yea and have cleft his club to make the fire too.

*Shakespeare.*

You weigh equally, a feather will *turn* the scale.

*Id.*

He called me sot;

And told me I had *turned* the wrong side out. *Id.*

Some dear friend dead; else nothing in the world Could *turn* so much the constitution

Of any constant man. *Id. Merchant of Venice.*



Rather turn this day out of the week :

This day of shame. *Shakespeare.*

Oh, world, thy slippery turns! friends now fast sworn,

On a dissension of a doit break out

To bitterest enmity. *Id.*

Courtesy itself must turn to disdain, if you come in her presence.

—Then is courtesy a turncoat. *Id.*

The cause of the imagination that things turn round is, for that the spirits themselves turn, being compressed by the vapour of the wine; for every liquid body, upon compression, turneth, as we see in water. *Bacon's Natural History.*

Cygnets from grey turn white; hawks from brown turn more white. *Id.*

Pompey turned upon him, and bade him be quiet.

*Bacon.*

The state of Christendom might by this have a turn. *Id.*

If a man see another turn swiftly and long: or if he look upon wheels that turn, himself waxeth turn-sick. *Id.*

Apollo, angry at the sight, from top of Ilium cride; Turne head, ye well-rod peeres of Troy. *Chapman.*

Lend this virgin aid:

Thanks are half lost when good turns are delayed.

*Fairfax.*

Such a light and mettled dance

Saw you never;

And by lead-men for the nonce,

That turn round like grindstones. *Ben Jonson.*

Impatience turns an ague into a fever, a fever to the plague, fear into despair, anger into rage, loss into madness, and sorrow to amazement.

*Taylor's Rule of Living Holy.*

A storm of sad mischance will turn into something that is good, if we list to make it so. *Taylor.*

His turn will come to laugh at you again.

*Denham.*

Neither will this shift serve the turn.

*Wilkins.*

The sun

Was bid turn reins from the equinoctial road.

*Milton.*

The gate on golden hinges turning.

*Id.*

Nature wrought so, that seeing me she turned.

*Id.*

This turn hath made amends! thou hast fulfilled Thy words, Creator, bounteous!

*Id.*

I ran with headlong haste

Through paths and turnings often trod by day. *Id.*

When to advance, or stand, or turn the sway Of battle. *Id.*

The vast abyss

Up from the bottom turned by furious winds. *Id.*

His gentle dumb expression turned at length

The eye of Eve to mark his play. *Id.*

They, by their skill in palmistry,

Will quickly read his destiny;

And make him glad to read his lesson,

Or take a turn for it at the session. *Bulter.*

He now was grown deformed and poor,

And fit to be turned out of door. *Hudibras.*

A turnstile is more certain

Than, in events of war, dame Fortune. *Id.*

The report, and much more the sight of a luxurious feeder, would turn his stomach. *Fell.*

Oil of vitriol and petroleum, a drachm of each, will turn into a mouldy substance. *Boyle.*

God will make these evils the occasion of a greater good, by turning them to advantage in this world, or increase of our happiness in the next. *Tillotson.*

Sheep, and great cattle, it seems indifferent which of these two were most turned to. *Temple.*

These are certain commodities, and yield the rea-

diest or any that are turned in this kingdom, as they never fail of a price abroad. *Id.*

Nor box nor limes without their use are made, Smooth-grained and proper for the turner's trade.

*Dryden.*

The turn of words, in which Ovid excels all poets, is sometimes a fault or sometimes a beauty, as they are used properly or improperly. *Id.*

Fortune confounds the wise,

And, when they least expect it, turns the dice. *Id.*

If I had taken to the church, I should have had more sense than to have turned myself out of my benefice by writing libels on my parishioners.

*Id. Preface to his Fables.*

He said, and, turning short with speedy pace,

Casts back a scornful glance, and quits the place.

*Dryden.*

They turn viragos too; the wrestler's toil

They try. *Id.*

The spiteful stars have shed their venom down,

And now the peaceful planets take their turn. *Id.*

Some malicious natures place their delight in doing ill turns. *L'Estrange.*

A man, though he turns his eyes towards an object, yet he may chuse whether he will curiously survey it. *Locke.*

'Twould be hard to imagine that God would turn him out of paradise, to till the ground, and at the same time advance him to a throne. *Id.*

The understanding turns inwards on itself, and reflects on its own operations. *Id.*

An English gentleman should be well versed in the history of England, that he may observe the several turns of state, and how produced. *Id.*

The whole lathe is made strong, because the matter it turns, being metal, is heavier than wood, and with forcible coming about, would, if the lathe were slight, make it tremble, and so spoil the work.

*Moxon's Mechanical Exercises.*

Small work in metal is turned in an iron lathe called a turnbench, which they screw in a vice, and, having fitted their work upon a small iron axle, with a drill barrel, fitted upon a square shank, at the end of the axis, next the left hand, they with a drill-bow, and drill-string, carry it about. *Moxon.*

Some turners, to shew their dexterity in turning, turn long and slender pieces of ivory, as small as an hay-stalk. *Id.*

His whole person is finely turned, and speaks him a man of quality. *Tatler.*

They who are conscious of their guilt, and apprehensive that the justice of the nation should take notice of their theft and rapine, will try to give all things a false turn, and to fill every place with false suggestions. *Davenant.*

Shrewd turns strike deeper than ill words. *South.*

Alas! she raves; her brain, I fear, is turned.

*Rowe.*

When the hen has laid her eggs so that she can cover them, what care does she take in turning them frequently that all parts may partake of the vital warmth! *Addison.*

There is not a more melancholy object than a man who has his head turned with religious enthusiasm. *Id.*

However improper he might have been for studies of a higher nature, he was perfectly well turned for trade. *Id.*

My thoughts are turned on peace.

Already have our quarrels filled the world

With widows and with orphans. *Id. Cato.*

Christianity directs our actions so, as every thing we do may turn to account at the great day.

*Id. Spectator.*

After a turbulent and noisy course among the

rocks, the Teverne falls into the valley, and after many turns and windings glides peaceably into the Tiber.

*Addison.*

Wit doth not consist so much in advancing things new, as in giving things known an agreeable turn.

*Id. Spectator.*

A young man of a sprightly turn in conversation had an inordinate desire of appearing fashionable.

*Spectator.*

The three first stanzas are rendered word for word with the original, not only with the same elegance, but the same short turn of expression peculiar to the sapphick ode.

*Addison.*

He turned his parts rather to books and conversation, than to politics.

*Prior.*

A man must guard, if he intends to keep fair with the world, and turn the penny.

*Collier of Popularity.*

Every one has a fair turn to be as great as he pleases.

*Collier.*

Luther's conscience, by his instigations, turns these very reasonings upon him.

*Atterbury.*

Though they held the power of the civil sword unlawful, whilst they were to be governed by it, yet they esteemed it very lawful when it came to their turn to govern.

*Id.*

A saline constitution of the fluids is acid, alkaline, or muriatic : of these in their turns.

*Arbutnot.*

The gates are shut, and the turnpikes locked.

*Id.*

The ancle-bone is apt to turn out on either side, by reason of the relaxation of the tendons upon the least walking.

*Wiseman.*

If we repent seriously, submit contentedly, and serve him faithfully, afflictions shall turn to our advantage.

*Wake.*

The choler of a hog turned syrup of violets green.

*Floyer.*

The first platform of the poem, which reduces into one important action all the particulars upon which it turns.

*Pope.*

The rage of thirst and hunger now suppress,  
The monarch turns him to his royal guest.

*Id. Odyssey.*

The bard, whom pilfered pastorals renown ;

Who turns a Persian tale for half a crown,

Just writes to make his barrenness appear.

*Pope.*

This beastly line quite turns my stomach.

*Id.*

Eastern priests in giddy circles run,

And turn their heads to imitate the sun.

*Id.*

Thus a wise taylor is not pinching,

Eat turns at every seam an inch in.

*Swift.*

The nymph will have her turn to be

The tutor, and the pupil he.

*Id.*

Books give the same turn to our thoughts and reasoning that good company does to our conversation.

*Id. Miscellanies.*

Rather than let a good fire be wanting, enliven it with the butter that happens to turn to oil.

*Id.*

The very turn of voice, the good pronunciation, and the alluring manner which some teachers have attained, will engage the attention.

*Watts.*

Turn these ideas about in your mind, and take a view of them on all sides.

*Id.*

His cares all turn upon Astyanax,

Whom he has lodged within the citadel. A. Philips.

For want of due improvement, these useful inventions have not turned to any great account.

*Baker's Reflections on Learning.*

TURNEBUS (Adrian), an eminent critic, born in 1512. His father was a Scotch officer whose name was Turnbull, which Adrian varied to Turnebe, in Latin Turnebus. He acquired so extensive a reputation by his learning that he

had great offers made him from Italy, Germany and England ; but he preferred poverty in France to riches any where else. He taught polite literature first at Toulouse ; but, in 1547, went to be Greek professor at Paris ; in 1552 he took upon him the care of the royal Greek press for three years, when he quitted it on being admitted into the number of royal professors. He died in 1565 ; and his works, which are all in Latin, were printed at Strasburg in 1 vol. folio, 1600.

TURNER (William), M.D., a celebrated physician and divine in the sixteenth century, born at Morpeth, in Northumberland, and educated at Cambridge where he became a Protestant, travelled over England to preach the reformed faith, for which bishop Gardiner put him in prison. On his release he went to Italy, and graduated at Ferrara. On the accession of Edward VI. he returned, and was made dean of Wells. When Mary succeeded he again went abroad, and did not return till after her death. Queen Elizabeth restored him to his preferments. He wrote a Treatise on the Baths of England and Germany ; a Complete Herbal, or History of Plants, folio ; Historia de Naturis Herbarum, Scholiis et Notis Vallata, 8vo. ; and some other botanical works. He died in 1568.

TURNER (Francis), son of the above, was educated at Winchester and at New College, Oxford. He became prebendary of St. Paul's, dean of Windsor, and bishop of Rochester in 1683, and in 1684 bishop of Ely. He was one of the seven bishops whom James VII. sent to the tower ; yet he was deprived of his bishopric at the revolution for refusing to take the oaths. He published some sermons, several sacred poems, and the life of Mr. Nicholas Ferrar. He died in 1700.

TURNERITE, a rare mineral in small crystals of a yellowish-brown, or brownish-yellow color. Brilliant. Primary form an oblique rhombic prism. Scratches fluor, but yields to the knife. Powder grayish-white. It contains alumina, lime, magnesia, and a very little iron. It has been found only on Mount Sorel in Dauphiny.

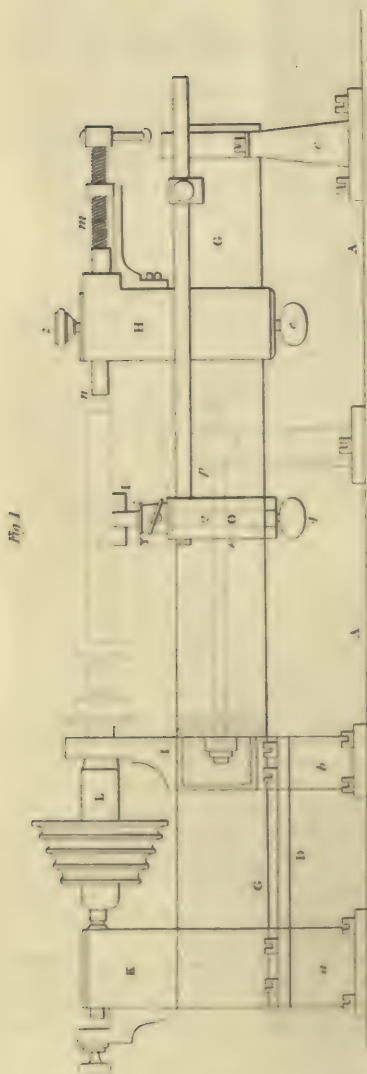
TURNHOUT, an inland town of the Netherlands, the chief place of a district in the province of Antwerp. It is well built ; has canal conveyance ; and its principal industry consists in manufacture of ticking. It has a traffic also in the produce of the neighbourhood, and several extensive bleaching establishments. In 1596 prince Maurice of Nassau, at the head of a detachment, defeated here a considerable body of Spaniards ; and in October 1789 an action took place here between the Austrian troops and the insurgents of Brabant. Population 10,000. Twenty-four miles east by north of Antwerp.

TURNING is the art of forming hard bodies, as wood, ivory, iron, into a round or oval shape by means of a machine called a lathe. This art was well known to the ancients, and seems to have been carried by them to a very great degree of perfection ; at least Pliny and other authors tell us that those precious vases, enriched with figures in half relief which still adorn our cabi-





PLATE 1



No 1

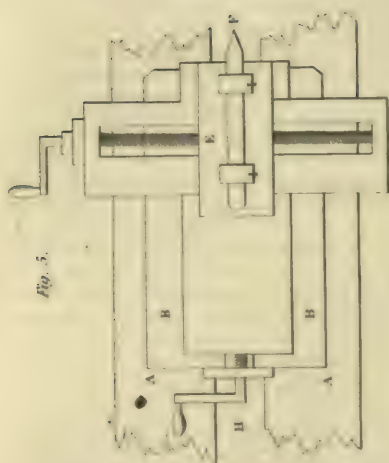
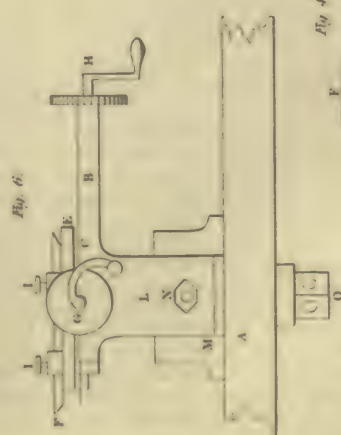
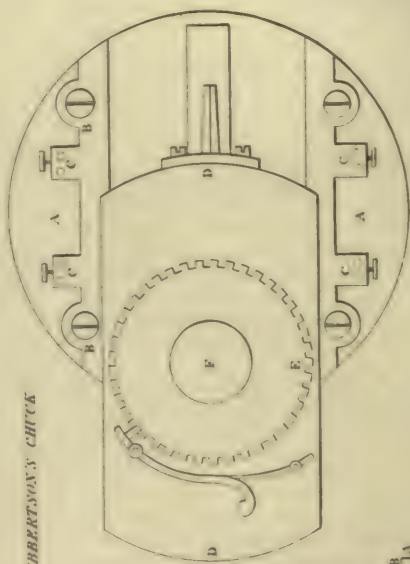


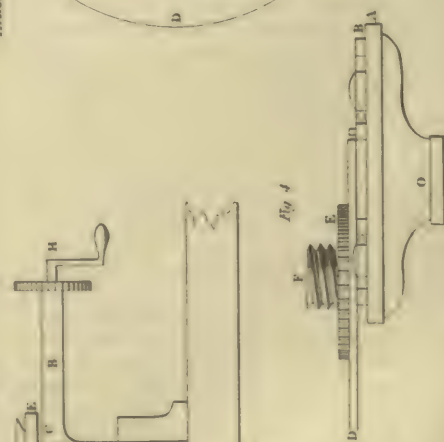
Fig. 5.



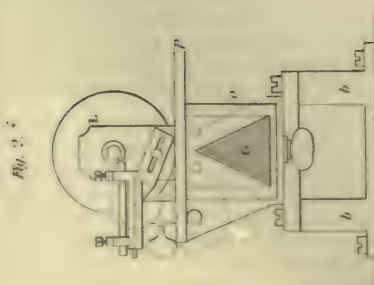
Plu. 6.



Plat. 3.



1018



Fl.



nets, were turned on the lathe. Turning is performed by the lathe, of which there are various kinds, and several instruments, as gouges, chisels, drills, formers, screw tales, used for cutting what is to be turned into its proper form as the lathe turns round.

The operation differs very essentially from most others, in the circumstance that the matter to be operated upon is put in motion by the machine, and is wrought by means of edged tools presented to it, and held fast; whilst, in most others, the work is fixed, and the tool put in motion by the workman.

In turning, the work is caused to revolve upon a stationary straight line, as an axis, while an edge tool, set steady to the outside of the substance in a circumvolution thereof, cuts off all the parts which lie farther off the axis, and makes the outside of that substance concentric to the axis. In this case any section of the work, made perpendicularly to the axis, will be of a circular figure; but there are methods of turning ellipses, and various other curves, which are known by the name of engine turning.

When compared with many other mechanical operations, the art of turning may be considered as perfect in the accuracy and expedition of the work, which is produced, and that independently of any extraordinary skill or dexterity of the workman: the lathe is therefore resorted to by mechanics to perform every work it is capable of, and these are so numerous as to demand, in preference to other mechanic operations, a minute detail.

Lathes are made in a great variety of forms, and put in motion by different means; they are called centre lathes where the work is supported at both ends; mandrel, spindle, or chuck lathes when the work is fixed at the projecting extremity of a spindle. From different methods of putting them in motion, they are called pole lathes, and hand wheel-lathes, or foot wheel-lathes; for very powerful works they are turned by horses, steam engines, or water mills. The lathes used by wood turners are generally made of wood, in a simple form, and are called bed-lathes, the same kind will serve for turning iron, or steel, but the best work in metal is always done in iron lathes, which are usually made with a triangular bar, and are called bar-lathes. Small ones, for the use of watch-makers, are called turn-benches, and turns, but there is in fact no proper distinction between these and the centre-lathes, except in regard to size, and that they are made of iron instead of wood.

The pole-lathe is now so little used as to make a particular description unnecessary, we may, therefore, proceed at once to that arrangement in which a bar forms the connecting link between the centres. The triangle bar lathe is shown at fig. 1, plate TURNING. Fig. 2 is an end view of that part which is above the bench or frame. AA represents the upper surface of a very thick and solid mahogany bench, upon which the whole is fixed, and the foot-wheel is situated beneath it, if convenient, to apply it in this manner; the puppets, and other parts of the lathe, are all fitted upon a strong triangular bar G, made of cast iron, planed and ground perfectly straight and true; it is supported by standards *a* *b* and *c*,

fixed to the bench by screws, as shown in the figure. Upon this bar the puppets H, I, and K, are fitted with the most perfect accuracy, and H, which is called the back puppet, can be fastened upon any part of the bar, by a screw *e* beneath it; the other two puppets are likewise furnished with screws beneath, to fasten the bar to them; but these two are supported independently of the bar, being connected together by a thick plate of metal D, screwed to their lower surfaces, and this is fixed on the standards *a* and *b*, so as to form an insulated frame, *a* K *b* I and D, containing the mandril or spindle L. The puppet K has a steel pivot with a hole in the end to receive the pointed end of the mandril L, a screw *f* is placed behind to force it up, and another at the top, to fasten it when adjusted, so that the neck of the mandril will exactly fit, without shake, into the steel collar which is fixed in the upper end of the puppet I. The back puppet H has a hole bored through it, exactly in the line of the spindle, to receive a cylindrical steel pin *n*, which has a sharp conical point to support the end of a long piece of work: a screw *m* is placed behind to force it up and keep the work always tight, and a screw *z* fastens the pin in its place.

The rest of the lathe is thus made:—A brass piece *o o*, called the saddle, is fitted upon the sides of the bar; upon this a steel slider *p* is fixed, having a tube Y to receive the shank of the rest T, with a screw to fasten it at any height; the slider *p* has a dove-tailed groove in its lower surface for the reception of dove-tails, formed at the upper ends of two steel bars; the two bars are united by a horizontal piece beneath the bar, the whole being made of one piece, bent like a staple or fork, and its two arms, 1 and 2, fitted in mortises cut through the saddle; by this means, a single screw, 4, tapped through the horizontal piece, and the point pressing on the under side of the bar, will fasten the rest, drawing the slider *p* down upon the saddle, by the two dovetails, and, at the same time, drawing the saddle down fast upon the bar.

The mandril L is made hollow nearly through, and, at the open end, is cut with a female screw, for the reception of male screws upon the various chucks, which fit to the lathe. This is a better method than the common way of a male screw on the mandril, because of the care with which the male screws for the chucks can be cut in brass, and the convenience of putting long work up the hollow mandril. This lathe has all the parts of the wooden lathe, but is far more convenient, because of the ease with which the puppet and rest can be shifted and fixed by only the finger and thumb, and yet the whole is much stronger, the puppets being so low from the bar; and another advantage is the accuracy with which the back centre-point *n* always keeps in a line with the mandril, which is indispensable for good turning; also the puppets being so slender, the operator has better access to the work than between clumsy wooden puppets, and which are not so strong as the small metal ones.

The process of turning may now be briefly examined. A piece of wood being chosen is by means of the saw, axe, and chisel, reduced to a cylindrical form, and by the rasp or draw

knife it is made tolerably correct; a chuck is then selected which has a hole in it nearly the size of the piece of wood. The diameter of this being taken in the outside end of the callipers, the chuck is screwed into the mandril, the rest fixed in a convenient position, and the hole in the chuck turned out by the right side tool, to the size measured by the inside end of the callipers. The hole should be rather conical, and the wood, being rasped to the same figure, is driven in fast by a hammer. By turning the mandril slowly round, it will be seen if the wood is fixed straight in a line with it, and if not a blow or two of the hammer properly directed will rectify it. The rest is set with its edge parallel to the outside of the piece of wood, and it is roughly turned by the gouge to a cylinder. To do this the gouge is held very firmly down upon the rest, taking its handle in the right hand and placing the fingers of the left in the hollow part near the work; the edge is presented to the work in such a direction that the tool is nearly a tangent to the surface of the cylinder. In this state it cuts best, and must be held very firmly to prevent the edge being depressed by the motion of the work; for, if it does, it will take hold too deep and tear the work. This tool is applied first to one end of the work and gradually advanced to the other, turning the work true all the way, and reducing it till the callipers determine it to be near the intended diameter. The chisel is now employed to smooth the cylinder; its handle is held in the right hand, whilst the left grasps the blade and keeps it steady upon the rest, holding the edge a little inclined over the work, so that one side of the flat part of the blade lays on the rest, and the other side is elevated that the plane of the blade, and consequently the edge, is not horizontal but inclined thereto; so that one corner of the edge of the chisel is elevated upon the work, then the bottom or near the bottom of the edge of the chisel cuts away a shaving off the work, and this is the only way in which it will cut; for, if the edge of the chisel is held parallel to the axis of the cylinder, it acts across the length of the grain of the wood, scraping away the fibres one by one without cutting, and leaves the surface very rough. Some chisels have their edges inclined, for the convenience of holding them properly before the work. The work, being thus reduced to a rough cylinder, must have its end made exactly flat; to do this the thin side of the chisel is laid upon the rest, so that the plane of the edge may stand exactly upright; the hand is depressed that the lower corner of the edge will rise against the work and cut a deep circle into it near the end, and being steadily advanced cuts to the centre, separating a thin round chip and leaving the end quite flat. The cutting corner of the chisel must be directed exactly perpendicular to the length of the work in advancing it, otherwise the end will be either concave or convex, and care must be taken to keep the plane of the edge truly upright, and hold it very fine, for there is danger of the work drawing the chisel into the end of it with a deep spiral cut like a screw, and tearing it out of the chuck.

The gouge and chisel are only used for turning soft wood, such as alder, willow, beech, &c.; but if the material to be turned be hard wood, as ebony, lignum vitæ, or ivory, bone, &c., the same mode of chucking is employed, but the tools and the manner of holding them is different. The hard wood tools are made with a stronger and more obtuse edge, for a fine keen edge would be carried away by the work when hard. In turning soft wood, as before mentioned, the edge of the chisel is at a considerable distance from the rest, and inclined upwards at such an angle as would cut off the greatest chip. But in hard wood the rest is raised nearly to a level with the axis, so that the upper flat surface of the tool points to the centre of the work to be turned; it is to be held down as firmly as possible to the rest, and advanced to the work at intervals whenever it ceases to cut, by having removed all the projections of the work without the circle it describes by its revolution.

The tools used for turning brass, or cast iron, are made from bars of steel; for, as those who turn metal are usually general mechanics, they make the tools themselves, and adapted for any particular occasion they require; the principal tools are gravers, square tools, pointed tools, round tools, and hooks. The graver is made like those used by engravers, from a square steel bar, cut off by an oblique plane at the end, which makes a lozenge or diamond face, and produces two inclined edges at two of the flat sides of the bar; these two are inclined opposite ways, so that the graver serves either for left or right-hand work by only turning it one quarter round to bring up another side. The point formed by the acute angle in which the two inclined edges meet is best adapted for cutting of any other form, and is exceedingly strong; the flat sides give it an excellent bearing upon the rest; another convenience of the graver is the ease with which it is sharpened, which is an object in turning hard metal, when it is so frequently necessary; it only requires to be held on the grind-stone in the proper angle, to grind the diamond face away, and thus make sharp edges with the two flat sides. Gravers, and all tools for metal, are hardened and tempered to a light straw color, so as to leave them very hard; cast steel is the best material. The graver is used to rough the work, its point being used to cut grooves all over the surface till it is true, and then the welved edge of the graver, or else a square or round tool, makes it smooth and a proper figure. It is necessary in beginning to turn with a small sharp point; for the resistance to any kind of edge would, in beginning, be so great as to tear every thing in pieces. Square tools are made like a narrow chisel, except that they are very thick, and the angle of the edge very obtuse; the upper surface, which is flat, is, in turning, made to point to the centre of the work. Round tools are like the former, except that the edges are made round for forming hollow mouldings, &c.

The pointed tool has two inclined edges forming a point which cut grooves in any piece of work; or its edges may be used to turn shoulders either right or left.



Drills of various sizes to bore holes in chuck work; they are fixed in handles.

Right and left side tools, such as before described.

Heel tools are used for turning wrought iron, steel, or copper; they are made with edges of all the shapes above-mentioned, but the end where the edge is formed is bent, so that when it is presented to the work, in its proper direction, the handle is inclined upwards, in such a position, that the end of it will lay on the turner's shoulder, and he holds it down firm with both his hands, the heel of the tool being supported on the rest. The metals above-mentioned are of a fibrous texture, and turn away in a connected shaving, the tools are therefore presented in the direction of a tangent to the work, the same as for soft wood; but as the drift of the work would force the tool endways, if held in the same manner as the chisel, it is necessary to have a heel, or angle, which is placed immediately upon the rest, then the long handle serves to guide and fix it, and by elevating the end the edge cuts deeper.

Cast iron is turned by hook tools; their edges are formed in various ways, but very obtuse, being nearly a right angle: in turning they are held in such a position that a line bisecting the angle of the edge is made to point nearly to the centre; but as the work is usually large, and the metal very hard, some contrivance is requisite to keep the tool up to the work, they are therefore made with a hook which has the edge at the end of it; the hook part is laid over the rest, in the same manner as a crow bar is used to draw out a spike or nail, and then, by raising or depressing the end of the handle, the edge is caused to approach or recede from the work with any required force, by only a moderate power applied at the end of the long handle; cannons, and other heavy cast iron work, are turned in this manner.

The eccentric chuck and slide-rest are very essential parts of a good turning lathe, and, as both these instruments have been materially improved by Mr. Ibbertson, we cannot do better than furnish our readers with an account of that gentleman's apparatus as constructed by Messrs. Holtzapfel and Deyerlein.

Fig. 3, plate TURNING, represents the chuck in its most simple form, but which is abundantly sufficient to show its nature and construction, and by means of which we may produce any of the eccentric figures in this work. Fig. 3 is a front view, and fig. 4 is a side view: the letters in each figure refer to the same parts in each view, we shall, therefore, rather more minutely describe fig. 3.

AAA is a plate of brass, or metal, of sufficient substance to be firm and solid, on which plate two slides of steel are affixed by the screws B, B, B, B; the holes which admit the screws are made a little oval, to enable the slides to move nearer or further apart if necessary. C, C, C, C, are four pieces of metal firmly fixed to plate A, and having a screw in each which presses on the sides B, B. DD is a plate of metal or brass, sliding between B, B, B, B, in a dove-tail, and must be made to fit very accurately when the slides are

parallel to each other, and is moved between the slides by means of a screw I, working in a slit made in the plate A; and which screw regulates the eccentricity, as it moves the plate D either nearer or further from the centre of the chuck. E is a circular plate of metal, whose edge is cut into teeth, and which is capable of being turned round its centre, and is held in any position by the catch G which falls in between the teeth, and is held in its place by a spring K. On the centre of the wheel E, is affixed a screw F, as shown more plainly in fig. 4, whose threads correspond with the screw of the mandril of the lathe, for the purpose of fixing any chuck, on which is fastened the substance on which we are working.

O, fig. 4, is a solid piece of metal, which screws on the lathe, and on which the plate A is fastened (A, fig. 4), by a rim enclosing the plate A, fig. 3 and fixed by screws, or, as sometimes is the case, A and O are in one solid piece.

Fig. 5 is a view of the slide rest, looking down on it, and fig. 6 is an elevation; the letters in both figures refer to the same parts in each. Thus, AA represents the bed of the lathe; B, B, are two pieces of brass, or metal, affixed by the screws, as shown in the figure, to a bed of cast iron; C is a plate of iron, sliding between the two pieces B, B, in a dove-tail, having a nut and screw, moved by a handle, as shown at H, by which it is drawn nearer or farther out; D is another piece of metal affixed to C, and at right angles to it, having a groove or channel through it to admit the screw K, which has a nut, to which the piece of metal E is fixed; I, I, are two pieces to fix the tool F, by means of the two screws I, I; on the axis of the handle G is a graduated circular plate, which turns with it, and, being affixed to the screw K, moves the plate E and tool F according to the diameter of the circle required. In fig. 6, L is the stand to which the plate B is affixed, and, by means of the nut N, is raised or depressed at pleasure, between the standard MM in a dove-tail. The whole is kept firm in its place by means of the nut and screw O, underneath the bed of the lathe.

• We may now illustrate the use and application of the eccentric chuck and slide-rest. Screw the chuck C in the mandril of the lathe, and bring the centre F of the slide DD to correspond to the centre of the plate A; then on the screw F fix whatever you wish to turn, and make the face perfectly level in the common way: then fix your slide-rest firm on the bench of your lathe, by means of the screw O, and elevate A, by means of the nut N, till the point of your tool F shall be of the same height as the centre of the chuck: by means of the handle G, make the centre of your tool correspond to the centre of your work very accurately, and let the plate C be at the end of the plate B, close to the screw H; then, by means of the screws at I, I, fix your tool so that its point shall just touch your work. Your instrument being thus accurately adjusted, you may proceed to the operation of describing any eccentric circle. And here it may be noted that the several screws I, fig. 3, in the eccentric chuck, and those at K and H, are best made with the same tool, and of a determined number of threads to the

inch, then they will all move equally, and determine with precision the eccentricity and diameter of the circles, and also the depth to which you wish to cut them by your tool.

One example will now be sufficient to explain the application; and, for the sake of being as perspicuous as possible, we will suppose the several regulating screws to be such that one turn shall move the plates and tool forward one-tenth of an inch. Now, suppose it is required to describe a circle whose eccentricity shall be half an inch, and radius one inch, and also that the depth to which we wish to cut it be the hundredth part of an inch, we must proceed as follows: turn the screw I of the chuck forwards five turns, which will be  $\frac{5}{10}$  or half an inch for the eccentricity, the screw of the rest G ten turns, which will make the radius one inch; then set your lathe in motion, and turn the screw H of the rest gradually one-tenth of a turn, and you will have described the circle required.

It now only remains to describe how we are to produce a series of eccentric circles about a common centre: this is easily performed by means of the toothed wheel E, which is commonly divided into ninety-six parts or teeth. Or we may employ three times ninety-six, or 288 teeth; and hence we can describe, round the common centre, the like number of circles, or any number from unity to 288. Thus, if it be required to draw 288 eccentric circles round the centre F, we must for every circle move the wheel E forward one tooth, till the whole be completed. Again, if we wish forty-eight eccentric circles round the common centre, we must divide 288, the whole number of the teeth, by forty-eight, which gives six, that is to produce forty-eight eccentric circles, we must, for every circle, move the wheel forward six teeth, and thus we may draw any number of circles equidistant from each other, round the centre F; with this limitation, that it must be such a number as will divide 288 without a remainder; for if there be a remainder the circles will not close or meet exactly, but will leave a space unoccupied.

We shall conclude this article with a number of receipts which every turner ought to be acquainted with.

1. *The method of moulding boxes both of shell and horn.*—In the first place form a proper mould, which must consist of two pieces; viz. of a circle about half an inch thick, which should slope a little in order to draw out the moulded shell the more easily; and a ring fitted to the outside of the circle, so that both together make the shape of a box. These two pieces being adjusted it is necessary to round the shell to be moulded of such a size that, when moulded, it will be a little higher than the ring of the mould that there may be no deficiency. The mould is then to be put into a press on a plate of iron exactly under the screw of the press; put then the shell upon the circle of the mould, so that its centre also is exactly opposite to the screw of the press; then take a piece of wood formed into a truncated cone, and not so thick as the diameter of the circle of the mould, nor so deep as the ring; then put a plate of iron above the cone, and screw down the press gently and cautiously till the

whole is well fixed; then plunge the whole into a cauldron of boiling water placed above a fire. In eight or ten minutes the shell or horn will begin to soften; screw the press a little firmer that the wooden cone may sink into the softened shell: repeat this from time to time till the cone is quite sunk in the mould; then take out the press and plunge it into cold water. When it is cold take the box now formed out of the mould and put into the inside of it a new mould of tin exactly of the form you wish the inside of the box to be; do the same with the outside, put it again into the press and plunge it into boiling water; screw the press gradually till the box be fashioned as you desire.

2. *Method of preparing green wood so that it will not split in the turning.*—Having cut your wood into pieces of a proper size, put it into a vessel full of a ley made with wood ashes. Boil it there about an hour; then, taking the cauldron off the fire, allow the ley to cool; then take out the wood and dry it in the shade.

3. *Method of giving an ebony-black to hard and fine woods.*—After forming the wood into the destined figure rub it with aquafortis a little diluted. Small threads of wood will rise in the drying, which you will rub off with pumice-stone. Repeat this process again, and then rub the wood with the following composition:—Put into a glazed earthen vessel a pint of strong vinegar, two ounces of fine iron filings, and half a pound of pounded galls, and allow them to infuse for three or four hours on hot cinders. At the end of this time augment the fire, and pour into the vessel four ounces of copperas (sulphate of iron) and a chopin of water, having half an ounce of borax and as much indigo dissolved in it; and make the whole boil till the froth rises. Rub several layers of this upon your wood, and, when it is dry, polish it with leather on which you have put a little tripoli.

4. *Method of giving to plum tree the color of brazil wood.*—Slake some lime with urine, and bedaub the wood over with it while it is hot: allow it to dry; then take off the coat of lime and rub it with chamois skin well oiled. Or steep your wood in water, having a quantity of alum dissolved in it: then, having allowed Brazil wood to dissolve in water five or six hours, steep your wood in it, kept lukewarm during a night; and when it is dry, rub it, as before directed, with chamois skin well oiled.

5. *Method of giving a fine black color to wood.*—Steep your wood for two or three days in lukewarm water in which a little alum has been dissolved; then put a handful of logwood, cut small, into a pint of water, and boil it down to less than half a pint. If you then add a little indigo, the color will be more beautiful. Spread a layer of this liquor quite hot on your wood with a pencil, which will give it a violet color. When it is dry, spread on another layer; dry it again and give it a third: then boil verdigris at discretion in its own vinegar, and spread a layer of it on your wood: when it is dry, rub it with a brush, and then with oiled chamois skin. This gives a fine black, and imitates perfectly the color of ebony.

6. *Method of cleaning and whitening bones be-*



*fore using them.*—Having taken off with a saw the useless ends of the bones, make a strong ley of ashes and quick lime, and into a paulil of this ley put four ounces of alum, and boil the bones in it for an hour; then take the vessel containing the ley off the fire and let it cool; then take out the bones and dry them in the shade.

7. *Method of soldering shells.*—Clean the two sides of the shells which you wish to join together; then, having joined them, wrap them up in linen folded double and well moistened; then heat two plates of iron pretty hot, that they may keep their heat for some time; and putting your shells rolled up between them under a press, which you must screw very tight, leave them there till the whole is cold, and they will be soldered. If you do not succeed the first time, repeat the process.

8. *Method of moulding shells.*—Put six pints of water into a kettle; add to it an ounce of olive or other oil; make the water boil; then put in your shell, and it will grow soft. Take it out and put it into a mould under a press, and it will take the figure you want. This must be done quickly; for, if the shell cool ever so little, the process will fail. It will not require much pressure.

9. *Method of tinging bones and ivory red.*—Boil shavings of scarlet in water. When it begins to boil, throw in a quarter of a pound of ashes made from the dregs of wine, which will extract the color: then throw in a little rock alum to clear it, and pass the water through a linen cloth. Steep your ivory or bone in aquafortis, and put it into the water. If you wish to leave white spots, cover the places destined for them with wax.

10. *To tinge ivory black.*—Steep the ivory five or six days in water of galls with ashes made with dried dregs of wine and arsenic; then give it two or three layers of the same black with which plum-tree is blackened, in order to imitate ebony. Or dissolve silver in aquafortis, and put into it a little rose water. Rub the ivory with this, and allow it to dry in the sun.

11. *Method of hardening wood to make pulleys.*—After finishing the pulley, boil it seven or eight minutes in olive oil, and it will become as hard as copper.

12. *To make Chinese varnish.*—Take of gum lac in grains four ounces; put it into a strong bottle with a pound of good spirit of wine, and add about the bulk of a hazel nut of camphor. Allow them to mix in summer in the sun, or in winter on hot embers for twenty-four hours, shaking the bottle from time to time. Pass the whole through a fine cloth, and throw away what remains upon it. Then let it settle for twenty-four hours, and you will find a clear part in the upper part of the bottle, which you must separate gently and put into another vial, and the remains will serve for the first layers.

**TUR'NIP**, *n. s.* Swedish *tar*, delicate; and Latin *nappus*, a root.—Thomson. A white esculent root.

November is drawn with bunches of parsnips and turnips in his right hand. *Peacham on Drawing.*

The goddess rose amid the inmost round.

With withered turnip-tops her temples crowned.

*Gay.*

*Turnips* hide their swelling heads below.

*Id. Pastoral.*

**TURNIP-ROOTED CABBAGE**, a valuable plant recommended by Sir Thomas Beevor, in the Bath Society's Papers, for rearing and fattening young bullocks and widders. See his method of cultivating them, under **RURAL ECONOMY**.

**TURON BAY**, a fine bay of Cochinchina, which receives the river on which is situated Faifo, the capital and principal seat of the commerce of that country. The country situated upon Turon Bay is remarkably fertile and beautiful. Cape Turon, in long. 108° 15' E., lat. 16° 5' N., forms its eastern extremity, and, with Turon Island, situated six miles to the north, makes an excellent harbour.

**TURPENTINE**, *n. s.* Italian *turpentina*; Latin *terebinthina*. The gum exuded by the pine, the juniper, and other trees of that kind.

As the turpentine tree I stretched out my branches.

*Eclaus.*

Vertgrease grinded with turpentine, put into a pot, and as you use it warm it.

*Peacham on Drawing.*

**TURPENTINE** is a transparent viscous substance, flowing either naturally or by incision from several unctuous or resinous trees; as the terebinthus, pine, larch, fir, &c. See **PINUS**, **CHEMISTRY**, and **MATERIA MEDICA**.

**TURPENTINE TREE.** See **PISTACIA**.

**TURPETH**, the cortical part of the root of a species of convolvulus, brought from the East Indies. It is accounted a pretty strong cathartic; but it is very uncertain in its strength, for sometimes a dose from a scruple to a dram purges violently, while at other times a much greater dose produces very little effect. See **CONVOLVULUS**.

**TURPIN DE CRISSE** (Lancelot), count, an eminent French military writer, of a noble family in Beauce, was born about 1715. He obtained a company in 1734, and ten years after a regiment of hussars, at the head of which he displayed his valor in the wars of Italy and Germany. At one time he quitted the army and retreated to the abbey of La Trappe; but, repenting of the step, he returned to his post, and not long after married the daughter of general Lowendhal. His leisure was dedicated to study, and in 1754 he published, in concert with Castilhon, *Les Amusements Philosophiques et Littéraires de deux Amis*. Being called to active service, in 1757, he distinguished himself as a skilful tactician, and was appointed *marechal-de-camp* in 1761, and in 1771 a commander of the order of St. Louis. After seventeen campaigns he obtained the rank of lieutenant-general in 1780; and the next year was made governor of the fort of Scarpe at Douai. His name appeared on the list of lieutenant-generals in 1792; and all that is known of his subsequent history is, that he died in Germany. He was a member of the academies of Berlin, of Nanci, and of Marseilles; and published the following works:—*Essai sur l'Art de la Guerre*; Paris, 1754, 2 vols. 4to., of which there are English, Russian, and German translations. *Commentaires sur les Mémoires de Montécuculi*; 1769, 3 vols. 4to. *Commentaire sur les Institutions de Végèce*; Mon

targis 1770, 3 vols. 4to : and *Les Commentaires de César*, avec des *Notes Historiques, Critiques, et Militaires*; Montargis, 1785, 3 vols. 8vo., reprinted at Amsterdam in 1787.

**TURPITUDE**, *n. s.* French *turpitude*; Lat. *turpitudō*, *turpis*. Gross deformity of words, thoughts, or actions; inherent vileness; badness.

How wouldst thou have paid

My better service, when my *turpitude*  
Thou thus dost crown with gold? *Shakspeare.*

Decency imports a certain measure of one thing to another; the preservation of which is properly that rule by which every thing ought to act; and, consequently the violation of it implies a *turpitude* or indecency. *South.*

**TURQUOIS**, MINERAL, or calaite. Colors smalt blue and apple green. Massive, disseminated, and imitative. Dull. Fracture conchoidal or uneven. Opaque. Harder than felspar, but softer than quartz. Streak white. Specific gravity 2.86 to 3.0. Its constituents are alumina 73, oxide of copper 4.5, water 18, oxide of iron 4.—John. It occurs in veins in clay-iron-stone, and in small pieces in alluvial clay. It has been found only in the neighbourhood of Nichabour in the Khorassan, in Persia. It is very highly prized as an ornamental stone in Persia and the neighbouring countries. Malchite yields a green streak, but that of calaite is white. Bone turquois is phosphate of lime colored with oxide of copper.

**TURQUOISE**, *n. s.* See **TURKOIS**.

One shewed me a ring, he had of your daughter  
for a monkey.

—Out upon her! it was my *turquoise*; I had it when  
I was a bachelor. *Shakspeare. Merchant of Venice.*

**TURREA**, in botany, a genus of plants in the class of decandria and order of monogynia; ranking, in the natural method, under the forty-ninth order composite.

**TURRET**, *n. s.* Latin *turris*. A small

**TURRETED**, *adj.* Eminence raised above the rest of the building; a little tower: turreted, with a turret or turrets.

Discourse, I pr'ythee, on this *turret's* top.

*Shakspeare.*

Take a *turreted* lamp of tin, in the form of a square; the height of the *turret* being thrice as much as the length of the lower part, whereupon the lamp standeth.

*Bacon's Natural History.*

All things well ordered, he withdrew with speed  
Up to a *turret* high, two ports between,  
That so he might be near at every need,  
And overlook the lands and furrows green.

*Fairfax.*

Make Windsor hills in lofty numbers rise,  
And lift her *turrets* nearer to the skies.

*Pope.*

**TURRETIN** (Francis), minister and professor of divinity at Geneva, his native place, was born in 1623. Having studied at Geneva, Leyden, Saumar, Montauban, and Nismes, with great success, he was admitted into the ministry in 1648, and served at the same time the French and Italian churches at Geneva. Two years after he was offered the professorship of philosophy, which he refused; but accepted the invitation of the church at Lyons. He was recalled to Geneva a year after, being wanted to give lectures in divinity; which he began in 1653. He was sent to Holland in 1661, to procure money

for the city of Geneva. He had in that journey all the success he could wish; and gained such a character that he was strongly importuned by the Walloon churches at the Hague and at Leyden to enter into their service. On his return he resumed the functions of his place, and continued there till his death. He died in 1687, with the character of a man of great merit; eloquent, judicious, laborious, learned, and zealous for orthodoxy. His works were published by his son, in 3 and in 4 vols. 4to.

**TURRETIN** (John Alphonsus), son of the above, was born at Geneva, in 1671; and became the first professor of ecclesiastical history, in that republic. He wrote an *Abridgment of Ecclesiastical History*; *Sermons*, and other works. He died at Geneva, 1737.

**TURRITIS**, tower mustard, or wall cress, in botany, a genus of plants belonging to the class of tetradynamia, and to the order of siliquosa; and in the natural system ranging under the thirty-ninth order, siliquosæ. The siliqua is very long and angulated; the calyx connivent and erect; the corolla is also erect. There are three species; two of which are natives of Great Britain; viz. 1. *T. glabra*, and 2. *T. hirsuta*.

**TURSHEEZ**, a considerable city of Korassan, Persia, on the borders of the Great Salt Desert. The old city (Sultanabad) is small; but to this a new one has been added, in which the governor resides. Both together contain about 20,000 inhabitants, among which are 100 Hindoo families. The trade arises chiefly from the importation of indigo and other drugs from the westward; wool, cloth, and rice from Herat. The chief export is iron. Between this and Herat the country is in general wild, mountainous, and uncultivated. 160 miles W. N. W. of Herat.

**TURTLE**, *n. s.* Saxon *turtel*; Fr. *tor-tur-tledove*. *Torelle*; Italian *tortorella*. A species of dove: also a kind of tortoise.

Take me an heifer and a *turtledove*. *Gen. xv. 9.*  
When shepherds pipe on oaten straws,  
And merry larks are ploughmen's clocks;  
When turtles tread.

*Shakspeare. Love's Labour Lost.*

We'll teach him to know turtles from jays.

*Shakspeare.*

Galen proposed the blood of turtles drop warm from their wings.

*Wiseman.*

**TURTLE**, in ichthyology. See **TESTUDO**.

**TURTLE**, AMERICAN, a machine invented by Mr. David Bushnell, of Saybrook, in Connecticut, for sub-marine navigation. The Catamarans, so pompously submitted, and so expensively attended to, by the late Mr. Pitt, as being the original invention of Mr. Fulton, were direct imitations, or rather copies, of the American turtle. It is a decked boat, and several persons are said to have gone under water many leagues. The difficulty is to provide the persons in the boat with fresh air for respiration, and this is contrived by having a reservoir of air, of suitable dimensions to the size of the boat, and the number of persons in it. By means of a condensing pump, the air in this reservoir is condensed about 400 times; and by a spring the air is let out at intervals, as circumstances require; the impure air being rectified by carboni



acid neutralised with chalk. Within the boat are flaps, like those of a rundle, to move the boat, two rudders, one vertical the other horizontal, and a pump to empty the hold or air-reservoir. The persons within can, at pleasure, come to the top of the water; and, to injure an enemy's vessel, the boat is steered to the ship, and a machine filled with combustibles is fixed to it, which is set on fire by a cock let off by a spring, after a certain time, during which the persons within the boat have provided for their safety. It does not appear that any vessel has as yet suffered by this invention. Experiments have been made, particularly by the French, but the difficulties of carrying them into execution in real practice are too great to afford any cause of alarm to our navy.

TURTLE-DOVE, in ornithology. See COLUMBA.

TUSCAN EARTH, a yellowish kind of bole dug in many parts of Italy, particularly about Florence, where there is a stratum of it eight or ten feet thick, at the depth of five or six feet from the surface. It is supposed to have an astringent property.

TUSCAN ORDER, in architecture. See ARCHITECTURE.

TUSCANY is a grand duchy of the upper part of Italy, half encompassed by the states of the church. It is bounded on the west by the Mediterranean, and on the north-west by the small principality of Lucca, except a detached part which borders on the south of Parma, between the states of Modena and those of Sardinia. It lies chiefly between 42° and 44° of lat., and resembles a heart in shape, with its point towards the south. Its greatest length is about 130 miles, and its extreme breadth rather more than 100, comprising a surface of 9270 square miles, and a population of 1,170,000, which is about 126 persons to each square mile.

This state formed a part of the late French empire, but was restored by the congress at Vienna, with the addition of the state of Presidii, and that part of the island of Elba which belonged to the king of Sicily before the year 1801, together with the principality of Piombino. Much of this duchy, which includes a great part of the ancient Etruria, is mountainous. The Appennines intersect it and spread their ramifications over all the eastern and southern districts. The Maremma stretches through a great part of the south-western regions; but here the efforts of art and the labors of cultivation have greatly diminished the influence of the Mal Aria, and rendered this part of the unhealthy tract much superior to that in the papal states. Tuscany presents many picturesque and beautiful scenes, smiling with the blushing fruits of Pomona, and the waving treasures of Ceres. The two principal rivers of Tuscany are the Arno and the Ombrone; the former intersects the country from east to west, and enters the Mediterranean near the northern extremity of the coast; the latter flows towards the south, and terminates in the same sea. The soil is often very fertile, yielding abundance of various kinds of grain, with oranges, lemons, olives, grapes, mulberries, and the different fruits common to other parts of Italy. Minerals are also obtained in the mountains of Tuscany,

with several precious stones not common to other parts. Among these have been mentioned amethysts, jaspers, cornelians, crystal, lapis lazuli, and chalcodony, with abundance of marble and alabaster. Quicksilver is also one of its products. Mineral waters have been discovered, and those of Pisa have long been celebrated.

The capital is Florence, not only one of the principal cities of Italy, but one of the handsomest in Europe. It stands in a beautiful plain watered by the Arno, and derives its name from the multiplicity of elegant flowers that bloom in its vicinity. Many natural curiosities exist among the elevated ridges of the Appennines, among which the following deserves to be mentioned. Near Pietra Mala, at the foot of mount Candida, is a fire perpetually issuing from the ground. Mr. Williams says, when he visited the spot, it rose in lambent flames among loose earth and stones, depositing a carbonaceous matter, volatilized, and lying like soot, without peculiar smell. When the wind blew, the flames were noisy like a bonfire, but in a calm they were silent. The extent was then about eleven feet, and the height about the same number of inches. Mr. Eustace states their length at 140 feet.

The chief culture in Tuscany is by the spade, the corn fields being so much intersected by rows of vines, by olives, and other fruit trees, that a plough can with difficulty be guided. A liberal application of manual labor insures a large return; but the cultivators are almost all poor. The system of metairie is general among the landlords engaging to supply the implements and other farming stock, while the tenant contributes his labor, along with half the cost of the seed and manure. Under this system a tenant has no inducement to make any permanent improvement; and, being in general too poor to hire laborers, is often too late with particular operations, such as the pruning of the vine, or the dressing of the olive; and the result is a penury of furniture, a wretched habitation, and a total absence of comfort. Still the inhabitants discover considerable ingenuity in irrigating the ground, and carrying cultivation along the acclivities of their hills and mountains.

Modern Tuscany is not conspicuous in manufactures. Its principal article is silk, made into a variety of articles—ribbons, stockings, gloves, as well as light and heavy stuffs; next come linen, and on a smaller scale woollens, straw hats, perfumed essences, and liquors. Leghorn is a port of considerable activity; the channel for the export of much produce, and for the import of a variety of goods from the Levant and the north of Europe; but Pisa has fallen from its former prosperity, and Florence and Sienna trade only with the interior.

Tuscany is divided into the three provinces of Florence, Pisa, and Sienna. The form of the government is monarchical; the title of the sovereign, archduke of Austria and grand duke of Tuscany; his appellation, imperial highness; his power, though exercised with mildness, is restricted by no representative body, or written authority. The executive is managed by the cabinet and a council of state. In taxation the principle is to burden property, but to be sparing

of the working classes. The revenue is about £600,000. The church establishment consists of three archbishops and sixteen bishops, whose incomes, and still more those of the inferior clergy, are very limited. The military force, exclusive of the volunteers or militia, does not amount to 3000 men; its navy is very insignificant.

In religion the Tuscans, with a slight exception (Jews to the number of 16,000), are Catholics, but exempt from several of the defects and bad habits of their Italian countrymen. They speak their language with considerable purity, and possess scientific institutions, which rank high among provincial academies.

To readers of ancient history Tuscany will be known under the names of Etruria and Tyrrhenia. Its territory, early peopled, contained twelve towns of note, in the ages which followed the foundation of Rome. About the year of Rome 474, after the conquest of the Volsci, Æqui, and other small tribes, but before the more hazardous contests with Pyrrhus and the Carthaginians, the Romans completed the subjugation of Etruria. It remained in their possession between 700 and 800 years, until overrun by the barbarians. Held at first as a duchy and fief of Lombardy, it was afterwards restored to independence; but, towards the beginning of the thirteenth century, the continued divisions which agitated it led first to a change in the form of government, and eventually to the ascendancy of the Medici family, which long ruled with the title of grand duke, but became extinct in 1737. Their place was filled by the duke of Lorraine. That prince, the husband of Maria Theresa, becoming afterwards emperor of Germany, vested the grand duchy in his second son. From him it descended to the grand duke Ferdinand, brother of Francis II. of Austria. In the wars of the French revolution the policy of Tuscany was to avoid any active participation in the contest. This did not, however, long exempt the country from change. By the treaty of Luneville (February 1801) the grand duchy of Tuscany received the title of kingdom of Etruria, and was transferred to the hereditary prince of Parma: in the subsequent incorporations of Buonaparte it was declared an integral part of the French empire, as we have seen.

**TUSCULANUM**, a villa belonging to Cicero, near Tusculum, where he wrote his *Questiones Tusculanæ*. Formerly the villa of Sylla; now called Grotta Ferrata.

**TUSH**, *interj.* Gothic *thus*; Dan. *tyss*. An expression of contempt.

*Tush*, say they, how should God perceive it? is 'here knowledge in the Most High? *Psalms*, lxxiii.

Sir Thomas More found fault with his lady's continual chiding; saying, the consideration of the time, for it was Lent, should restrain her. *Tush*, *tush*, my lord, said she, look, here is one step to heaven-ward, shewing him a friar's girdle. I fear me, quoth Sir Thomas, this one step will not bring you up a step higher. *Camden's Remains*.

*Tush*, never tell me: I take it much unkindly That thou, Iago, who hast had my purse As if the strings were thine, shouldst know of this.

*Shakespeare*.

**TUSK**, *n. s.*

**TUSK'ED**, *adj.*

**TUSK'Y**.

Sax. *týxar*; old Frisick *tosken*. The long teeth of a pugnacious animal; the fang; holding tooth: furnished with tusks.

Some creatures have over-long or out-growing teeth, called fangs, or *tusks*; as boars and pikes.

*Bacon*.

Into the naked woods he goes,  
And seeks the *tusky* boar to rear.

*Dryden*.

Of those beasts no one was horned and *tusked* too; the superfluous blood not sufficing to feed both.

*Greiv*.

The boar depended upon his *tusks*. *L'Estrange*.

A monstrous boar

Whetting his *tusks*, and churning hideous foam.

*Smith*.

**TUSSILAGO**, colt's foot, in botany, a genus of plants, belonging to the class syngenesia, and order of polygamia superflua; and in the natural system ranging under the forty-ninth order, compositæ. The receptacle is naked; the pappus simple; the scales of the calyx equal, of the same height as the disk, and somewhat membranaceous. There are twelve species; three of which are indigenous in Britain.

**TUSSUCK**, *n. s.* Diminutive of tuzz. A tuft of grass or twigs.

The first is remarkable for the several *tussucks* or bunches of thorns, wherewith it is armed round.

*Greiv*.

**TUT**, *interj.* The same with tush. A particle noting contempt.

*Tut, tut!* grace me no grace, nor uncle me no uncle.

*Shakspeare*.

*Tut, tut!* here's a mannerly forbearance.

*Id*.

**TUTANA**, or **TOTANA**, a considerable town of the province of Murcia, Spain, on the great road by which that province communicates with Andalusia. It contains 8000 inhabitants; the houses are low and mean; and the public buildings confined to a church, a monastery, and an hospital. The surrounding country is naturally fertile, but in a great measure uncultivated, the inhabitants being thinly scattered and devoid of activity. Eighteen miles E. N. E. of Lorca.

**TUTANAG**, *n. s.* Chin. *tutungae*. Spelter.

*Tutanage* is the Chinese name for spelter, which we erroneously apply to the metal of which caisters are made, that are brought over with the tea from China; it being a coarse pewter made with the lead carried from England, and tin got in the kingdom of Quintang.

*Woodward*.

**TUTENAG**. This name is given in India to the metal zinc. It is sometimes applied to denote a white metallic compound, brought from China, called also Chinese copper, the art of making which is not known in Europe. It is very tough, strong, malleable, may be easily cast, hammered, and polished; and the better kinds of it, when well manufactured, are very white, and not more disposed to tarnish than silver is. Three ingredients of this compound may be discovered by analysis; namely, copper, zinc, and iron. Some of the Chinese white copper is said to be merely copper and arsenic.

**TUTENAGO**, an ore of zinc, containing commonly from sixty to ninety per cent. of zinc, the remainder iron, and a small proportion of clay.

See MINERALOGY.



**TUTELAR**, *adj.* } Lat. *tutela*. Having the  
**TUTELARY**, } charge or guardianship of  
**TUTELAGE**, *n. s.* } any person or thing; state  
of being under a guardian : guardianship.

He accepted the ambassage with an article in the nature of a request, that the French king might, according unto his right of seignory or *tutelage*, dispose of the marriage of the young duchess of Brittany. *Bacon.*

The *tutelage* whereof, as those past worlds did please,

Some to Minerva gave, and some to Hercules.

*Drayton.*

According to the traditions of the magicians, the *tutelary* spirits will not remove at common appellations, but at the proper names of things whereunto they are protectors. *Browne.*

If one in the possession of lands die, and leave a minor to succeed him, his *tutelage* belongeth to the king. *Drummond.*

Temperance, that virtue without pride, and fortune without envy, that gives indolence of body, with an equality of mind; the best guardian of youth and support of old age, the precept of reason, as well as religion, and physician of the soul as well as the body; the *tutelar* goddess of health, and universal medicine of life. *Temple.*

These *tutelar* genii who presided over the several people committed to their charge, were watchful over them. *Dryden.*

Ye *tutelar* gods, who guard this royal fabric!

*Rowe.*

**TUTOR**, *n. s. & v. a.* } Lat. *tutor*; Fr. *tu-*  
**TUTORAGE**, *n. s.* } *teur*. One who has  
**TUTORESS**. } the care of another's

learning and morals; a teacher or instructor: to instruct; treat with superiority or haughtiness: tutoress is the feminine noun substantive: tutorage, the authority or solemnity of a tutor.

When nobles are the tailors' tutors;  
No hereticks burnt but wenchens tutors. *Shakspeare.*

He cannot be a perfect man,  
Not being tried and tutored in the world. *Id.*

The cock has his spurs, and he strikes his feet inward with singular strength and order; yet he does not this by any syllogistical method, but is merely tutored by instinct. *Hale.*

Fidelia shall be your tutoress. *Moore's Foundling.*

His body thus adorned, he next designed  
With liberal arts to cultivate his mind:

He sought a tutor of his own accord,  
And studied lessons he before abhorred. *Dryden.*

I take a review of my little boys mounted upon hobby-horses, and of little girls tutoring their babies.

*Addison.*

A primitive Christian, that coming to a friend to teach him a psalm, began, I said I will look to my ways, that I offend not with my tongue: upon which he stopt his tutor, saying, This is enough, if I learn it. *Government of the Tongue.*

No science is so speedily learned by the noblest genius without a tutor. *Watts.*

And, what still more his staggering virtue tried,  
His mother, tutoress of that virtue, died. *Harte.*

**TUTOR**, in the civil law, is one chosen to look to the persons and estates of children, left by their fathers and mothers in their minority. The different kinds of tutory established among the Romans, and the powers and duties of tutors, are described in Inst. Leg. 1. T. XIII. sect 1. and 2, to which the reader is referred. See also the article **GUARDIAN**.

VOL. XXII.

**TUTSBURY**, a parish of Staffordshire, on the Don River over which is a neat stone-bridge, has an ancient castle, belonging to the earls of Derby, which was formerly one of the most noted in England. The church is a large massive building. In the town are several chapels for dissenters, and an excellent free-school. A market was once held here, but is discontinued. The chief business of the place is wool-combing, and a cotton manufactory. Fairs, February 14th, August 15th, and December 1st. Six miles north by west of Burton and 134 from London.

**TUTTY**, an argillaceous ore of zinc, found in Persia, formed on cylindrical moulds into tubulous pieces, like the bark of a tree, and baked to a moderate hardness; generally of a brownish color, and full of small protuberances on the outside, smooth and yellowish within, sometimes whitish, and sometimes with a bluish cast. Like other argillaceous bodies, it becomes harder in a strong fire; and after the zinc has been revived and dissipated by inflammable additions, or extracted by acids, the remaining earthy matter affords an aluminous salt, with sulphuric acids. Tutty is celebrated as an ophthalmic, and frequently employed as such in unguents and collyria. See **PHARMACY**.

**TUY**, an ancient town of Galicia, Spain, the chief place of a district, stands on the summit of a rising ground, at the foot of which flows the Minho. It has always been fortified, and is considered one of the keys of the kingdom on the side of Portugal, standing within cannon-shot of Valença. It has good ramparts and a citadel: its streets are regular and neatly paved, and the environs and public walks are pleasant. It has little trade, except contraband intercourse with Portugal: but is a bishop's see, and has an audience or court for the administration of civil affairs. The militia of Galicia has its rendezvous here. Inhabitants 4000.

**TUR**, a river of the Caraccas, in the province of Venezuela, which falls into the ocean thirty leagues east of the port of Guaira.

**TUZ**, *n. s.* Welch *tusz*. A lock or tuft of hair.

With odorous oil thy head and hair are sleek;  
And then thou kempest the *tuzzes* on thy cheek;  
Of these thy barbers take a costly care. *Dryden.*

**TWAIN**, *adj.* Sax. *twegen*, *batpa*, both, twain. Two. An old word, not now used but ludicrously.

'Tis not the trial of a woman's war,  
The bitter clamour of two eager tongues,  
Can arbitrate this cause betwixt us *twain*. *Shakspeare.*

Of my condition take no care;  
It fits not; thou and I long since are *twain*. *Milton*  
When old winter split the rocks in *twain*,  
He stripped the bear's-foot of its leafy growth. *Dryden.*

**TWANG**, *v. n., v. a., n. s., & i* } A word form-  
**TWANG'ING**, *adj.* [*interj.*] } ed from the  
sound. To sound with a quick sharp noise: to make to sound thus: the sound made: as an interjection it marks some quick sharp sound: twangling is contemptibly noisy.

A swaggering accent sharply *twanged* off, gives manhood approbation. *Shakspeare. Twelfth Night.*

U

She did call me rascal, fidler,  
And *twangling* jack, with twenty such vile terms.  
*Shakspeare.*

They by the sound and *twang* of nose,  
If all be sound within, disclose. *Butler's Hudibras.*  
His quiver o'er his shoulders Phœbus threw,  
His bow *twanged*, and his arrows rattled as they flew.  
*Dryden.*

The *twanging* bows  
Send showers of shafts, that on their barbed points  
Alternate ruin bear. *Philips.*

If he be but a person in vogue with the multitude  
he can make popular, rambling, incoherent stuff,  
seasoned with *twang* and tautology, pass for high  
rhetoric. *South.*

There 's one, the best in all my quiver,  
*Twang!* through his very heart and liver. *Prior.*  
He has such a *twang* in his discourse, and un-  
graceful way of speaking through his nose, that one  
can hardly understand him. *Arbuthnot.*

So swells each wind-pipe; as intones to as,  
Harmonic *twang* of leather, horn, and brass. *Pope.*  
Sounds the tough horn, and *twangs* the quivering  
string. *Id.*

TWANK, *v. n.* Corrupted from *twang*. To  
make to sound.

A freeman of London has the privilege of dis-  
turbing a whole street with *twanking* of a brass kettle.  
*Addison.*

TWAS. Contracted from it was.

If he asks who bid thee, say 'twas I. *Dryden.*

TWATTLE, *v. n.* Teut. *schwatzen*. To  
prate; to gabble; to chatter.

It is not for every *twattling* gossip to undertake.  
*L'Estrange.*

TWAY. For TWAIN.

Gyon's angry blade so fierce did play  
On the other's helmet, which as Titan shone,  
That quite it clove his plumed crest in *tway*.  
*Spenser.*

TWEAG, *v. a. & n. s.* } Written *twag* by Skin-  
TWEAK. } ner, but *tweak* by other  
writers. Germ. *tuacken*. To pinch; squeeze be-  
twixt the fingers: a squeeze; a state of perplexity.

Who calls me villain, breaks my pate across,  
*Tweaks* me by the nose. *Shakspeare.*

To rouse him from lethargick dump,  
He *tweaked* his nose. *Butler.*

This put the old fellow in a rare *tweague*.  
*Arbuthnot.*

Look in their face, they *tweaked* your nose.  
*Swift.*

TWEDDELL (John), an accomplished travel-  
ler, was born June 1st, 1769, at Threepwood,  
near Hexham in Northumberland, of which  
county his father, Francis Tweddell, esq., was a  
magistrate. He was educated at Harforth  
school, Yorkshire, under Dr. Parr; and lastly at  
Trinity College, Cambridge, where he obtained  
a fellowship in 1792. Distinguished very much  
at the university, several of his compositions were  
published by him in 1794, under the title of  
*Prolusiones Juveniles*. On quitting Cambridge,  
he became a student of the Middle Temple, but  
subsequently resolved to travel. After remaining  
abroad nearly four years, having explored Switzer-  
land, the north of Europe, and various parts of  
the east, he died prematurely at Athens on the  
25th of July 1799. As it was known that he  
had amassed large materials for publication, the  
learned looked anxiously for them; but, although  
his manuscripts were officially placed in the

custody of the British ambassador at Constanti-  
nople, none of them ever came to the hands of  
his friends! A volume of his Remains, consist-  
ing of a selection from his letters, a republica-  
tion of his *Prolusiones Juveniles*, and a memoir  
appeared in 1815, edited by his brother, the Rev.  
Robert Tweddell.

TWEED, a river of Scotland, which rises in the  
south-west corner of the county of Peebles, from  
Tweedswell, 1500 feet above the level of the sea,  
near where the counties of Peebles, Dumfries,  
and Lanark join. It takes a course nearly north-  
east, and is then joined by the Lyne about three,  
and the Manor about two miles above Peebles,  
where it is further increased by Eddlestone  
water, by the Leithan, near Inverleithan, and the  
Quair on the opposite side; when, running  
nearly east, its stream is augmented by the Et-  
trick three miles below Selkirk, the Gala one  
mile and a half below Galashiels, the Leader at  
Drygrange-bridge, and the Teviot at Kelso. A  
few miles below Kelso it leaves Roxburghshire,  
and forms for many miles the boundary between  
England and Scotland, until it falls into the  
German Ocean at the town of Berwick-upon-  
Tweed. During this part of its course, it receives,  
four miles below Kelso, the Eden, the Till at  
Tillmouth, and the Whittadder about five or six  
miles from its mouth. The Tweed abounds with  
trout and salmon: it is a celebrated pastoral  
stream, and gives name to many beautiful Scot-  
tish melodies.

TWEE'DLE, *v. a.* Belg. *tevedelen*, from *vedel*,  
a violin.—Thomson. To handle lightly. Used  
of awkward fiddling.

A fidler brought in with him a body of lusty young  
fellows, whom he had *tweedled* into the service.  
*Addison.*

TWEEZ'ERS, *n. s.* Fr. *etuy*. Nippers, or  
small pincers, to pluck off hairs.

There heroes' wits are kept in ponderous vases,  
And beaus' in snuff-boxes and *tweezer*-cases. *Pope.*

TWELVE, *adj.* } Saxon *twelf*. Two  
TWELVE-MONTH, *n. s.* } and ten; twice six: a  
TWELVE-PENNY, *adj.* } twelvemonth is a year,  
TWELFTH, } as consisting of twelve  
TWELFTH-TIDE, *n. s.* } months: twelvepenny,  
sold for a shilling: twelfth is the ordinal of  
twelve: twelfth-tide, the twelfth day after Christ-  
mas.

He found Elisha plowing with *twelve* yoke of oxen,  
and he with the *twelfth*. *1 Kings* xix. 9.

Plough-monday, next after that *twelfth-tide*,  
Bids out with the plough. *Tusser's Husbandry.*  
Thou has beat me out *twelve* several times.

*Shakspeare. Coriolanus.*  
I shall laugh at this a *twelvemonth* hence.  
*Shakspeare.*

I would wish no other revenge, from this rhyming  
judge of the *twelvepenny* gallery. *Dryden.*

On his left hand *twelve* reverend owls did fly:  
So Romulus, 'tis sung, by Tyber's brook,  
Presage of sway from twice six vultures took. *Id.*

Supposing, according to the standard, five shillings  
were to weigh an ounce, wanting about sixteen  
grains, whereof one *twelfth* were copper, and eleven  
*twelfths* silver, it is plain here the quantity of silver  
gives the value. *Locke.*

In the space of about a *twelvemonth* I have run out  
of a whole thousand pound upon her. *Addison.*



Not twice a *twelvemonth* you appear in print.

Pope.

**TWELFTH DAY**, the festival of the Epiphany, or the manifestation of Christ to the Gentiles; so called, as being the twelfth day, exclusive, from the nativity or Christmas day.

**TWENTY**, *adj.* } Sax. *twēntig*. Twice ten;  
**TWENTIETH**. } any great number: the ordinal of twenty.

Maximilian, upon *twenty* respects, could not have been the man.

Bacon's *Henry VII.*

This year,  
The *twentieth* from the firing the capitol,  
As fatal too to Rome, by all predictions.

Ben Jonson.

Why was not I the *twentieth* by descent  
From a long restive race of droning kings?

Dryden.

At least nineteen in *twenty* of these perplexing words might be changed into easy ones.

Swift.

The **TWENTY-FOUR PERGUNNAS**, is a considerable district of Bengal, adjoining the southern limit of Calcutta, and was the first territory of any extent the British possessed in Bengal, being ceded to them by the nabob Jaffier Ali Khan, immediately after the revolution of 1757. It contains above 880 square miles, and constitutes one of the Bengal collectorships. It has a judicial establishment of its own, the European members of which reside in Calcutta; and is subordinate to a court of appeal at Calcutta. Fulta and Beninpoore are the principal towns.

**TWICE**, *adv.* Sax. *twīgō*; Belg. *twées*. Two times; doubly.

**TWICKENHAM**, a populous village on the Thames, about ten and a half miles from London. Between Richmond bridge and this village is a rural walk, on the border of the river; and probably no promenade of a similar extent, in any part of England, presents a display of scenery so soft and so highly cultivated. The margin of the Thames is lined with stately dwellings, whose ornamental grounds descend to the water's edge; among which is the residence of Pope. The house was not large, but Pope took great delight in embellishing the grounds. The weeping willow, planted by him, perished in 1801, and another has been planted on the spot. Here he translated a part of the *Iliad*, and wrote the *Dunciad*, the *Essay on Man*, the *Epistles*, &c., and hence are dated the greater number of his letters; here, also, he died. His villa was taken down by baroness Howe, in 1807, and a new dwelling erected about 100 yards from the site. His grotto has been stripped of its most curious spars and minerals, by persons desirous of procuring memorials of the poet. Strawberry hill (Walpole's villa), and its fine collection of *virtù*, are entire. In the church of Twickenham Pope and his parents are interred.

**TWID'DLE**, *v. a.* Commonly written **TWEEDLE**, which see. To touch lightly. A low word.

**TWIG**, *n. s.* } Sax. *twīg*, *twīgga*; Belgic  
**TWIG'GEN**, *adj.* } *twygg*. A small shoot of a branch; a switch, tough and long: made of twigs.

**TWILIGHT**, *n. s. & adj.* Sax. *twēoneleohr*; Belg. *twēelicht*. The faint light before sunrise, and after sunset; obscure light or view; not clearly illuminated or seen; done by twilight.

Her *twilights* were more clear than our mid-day.

Donne.

A faint weak love of virtue, and of good,  
Reflects from her on them, which understood  
Her worth; and though she have shut in all day,  
The *twilight* of her memory doth stay.

Id.

He that saw hell in 's melancholy dream,  
And, in the *twilight* of his phancy's theme,  
Scared from his sins, repented in a fright,  
Had he viewed Scotland, had turned proselyte.

Cleaveland.

Ambrosial night, with clouds exhaled  
From that high mount of God, whence light and  
shade  
Spring both, the face of brightest heaven had  
changed

To grateful *twilight*. Milton's *Paradise Lost*.

When the sun begins to fling  
His flaming beams, me, goddess, bring  
To arched walks of *twilight* groves. Milton.  
Trip no more in *twilight* ranks. Id.

When the sun was down,  
They just arrived by *twilight* at a town. Dryden.

In the greatest part of our concernment he has afforded us only the *twilight* of probability, suitable to our state of mediocrity. Locke.

O'er the *twilight* groves, and dusky caves,  
Long-sounding isles, and intermingled groves,  
Black Melancholy sits, and round her throws  
A death-like silence, and a dread repose. Pope.

**TWILIGHT** is that light, whether in the morning before sun-rise, or in the evening after sunset, supposed to begin and end when the least stars that can be seen by the naked eye cease or begin to appear. See **ASTRONOMY**, Index.

**TWIN**, *n. s. & v. n.* } Sax. *twinn*; Belgic  
**TWIN'LING**, *n. s.* } *twēelingen*. Children  
**TWIN'NER**, } born at a birth. Seldom  
used in the singular: the sign of the zodiac called Gemini: to be born at the same birth; be paired or suited: a twinling is a twin-lamb: twinner, a breeder of twins.

Ewes yearley by twinning rich maisters do make,  
The lambe of such *twinnings* for breeders go take.

Tusser.

*Twinnings* increase bring. Id. Husbandry.

O how inscrutable! his equity  
Twins with his power. Sandys.

In bestowing  
He was most princely: ever witness for him  
Those *twins* of learning, Ipswich and Oxford.

Shakspeare.

Our sins lay on the king; he must bear all,  
O hard condition, and *twindorn* with greatness! Id.

He that is approved in this offence,  
Though he had *twinned* with me both at a birth,  
Shall lose me. Id. Othello.

They came *twins* from the womb, and still they live  
As if they would go *twins* too to the grave. Otway.

The divided dam  
Runs to the summons of her hungry lamb;  
But, when the *twins* cries halve, she quits the first.

Cleaveland.

No weight of birth did on one side prevail,  
Two *twins* less even lie in Nature's scale. Cowley.  
If that moment of the time of birth be of such moment, whence proceedeth the great difference of the constitutions of *twins*, which, though together born, have strange and contrary fortunes?

Drummond.

Fair Leda's *twins*, in time to stars decreed,  
One fought on foot, one curb'd the fiery steed.

Dryden.

Had there been the same likeness in all men, as sometimes in *twins*, it would have given occasion to confusion. *Grew.*

When now no more the alternate *twins* are fired, Short is the doubtful empire of the night.

*Thomson.*

**TWINE**, *v. a., v. n. & n. s.* Saxon *twīnan*; Belg. *twynan*. To twist or complicate so as to unite, or form one body or substance out of two or more: to unite itself; convolve; wind: a twisted thread; convolution.

Thou shalt make an hanging of blue, and fine *twined* linen, wrought with needlework.

*Exodus xxvi. 36.*

Friends now fast sworn, who *twine* in love Unseparable, shall, within this hour, On a dissension of a doit, break out To bitterest enmity.

*Shakespeare.*

O friends!

Some one abides within here, that commends The place to us, and breathes a voice divine: As she some web wrought, or her spindles *twine*, She cherisht with her song.

*Chapman.*

By original lapse, true liberty Is lost, which always with right reason dwells, *Twined*, and from her hath no dividual being.

*Milton.*

Welcome joy and feast, Braid your locks with rosy *twine*, Dropping odours, dropping wine.

*Id.*

Everlasting hate

The vine to ivy bears, but with am'rous *twine* Claps the tall elm.

*Philips.*

As rivers, though they bend and *twine*, Still to the sea their course incline.

*Swift.*

The deer rustles through the *twining* brake.

*Thomson.*

**TWINGE**, *v. a. & n. s.* Teut. *twingen*; Dan. *twinge*. To torment with sudden and sharp pain; pinch: a tweak or pinch.

When a man is past his sense, There's no way to reduce him thence, But *twinging* him by the ears and nose, Or laying on of heavy blows.

*Hudibras.*

The wickedness of this old villain startles me, and gives me a *twinge* for my own sin, though far short of his.

*Dryden.*

How can you fawn upon a master that gives you so many blows and *twinges* by the ears?

*L'Estrange.*

**TWINK**, *n. s.*

Saxon *twīnchan*.

**TWINKLE**, *v. n. & n. s.* } The motion of the

**TWINKLING**, *n. s.* } eye: to twinkle is to sparkle; flash irregularly; shine with intermitted light; quiver: a sparkling intermitting light; motion of the eye; a space as short as such motion.

Money can thy wants at will supply: Shields, steeds, and arms, and all things for thee meet,

It can pourvey in *twinkling* of an eye.

*Spenser.*

Suddenly, with *twinkle* of her eye,

The damsel broke his misintended dart.

*Id.*

She hung about my neck, and kiss on kiss

She vied so fast, protesting oath on oath,

That in a *twink* she won me to her love.

*Shakespeare.*

At first I did adore a *twinkling* star,

But now I worship a celestial sun.

*Id.*

His eyes will *twinkle*, and his tongue will roll,

As though he beckoned and called back his soul.

*Donna.*

Some their forked tails stretch forth on high,

And tear the *twinkling* stars from trembling sky.

*Fairfax.*

God comprises all the good we value in the creatures, as the sun doth the light that *twinkles* in the stars.

*Boyle.*

I come, I come; the least *twinkle* had brought me to thee.

*Dryden's Don Sebastian.*

The star of love,

That *twinkles* you to fair Almeyda's bed.

*Dryden.*

The action, passion, and manners of so many persons in a picture, are to be discerned in the *twinkling* of an eye, if the sight could travel over so many different objects all at once.

*Id.*

The owl fell a moping and *twinkling*.

*L'Estrange.*

These stars do not *twinkle* when viewed through telescopes which have large apertures.

*Newton.*

**TWIRL**, *v. a., v. n., & n. s.* From whirl. To turn or move round quickly; revolve with quickness; rotation; circular motion; twist.

Wool and raw silk by moisture incorporate with other thread: especially if there be a little wreathing, as appeareth by the twisting and *twirling* about of spindles.

*Bacon.*

Dextrous damsels *twirl* the sprinkling mop.

*Gay.*

Some taught with dextrous hand to *twirl* the wheel.

*Doddsley.*

The *twirl* on this is different from that of the others; this being an heterostrophia, the *twirls* turning from the right hand to the left.

*Woodward on Fossils.*

**TWISS** (Richard), an English tourist, after a journey to Scotland, went successively to Holland, the Netherlands, France, Switzerland, Italy, Germany, and Bohemia. He spent several years in travelling through these countries, and returned to England in 1770: two years after he took a voyage to Portugal and Spain, and in 1775 went to Ireland. At the period of the Revolution he revisited France, and returning home devoted the latter part of his life to literature and the arts, particularly music. His works are *Travels through Spain and Portugal in 1772 and 1773*; 1775, 4to., translated into French and German; *A Tour in Ireland in 1775*; 1776, 8vo.; in which the freedom of the author's animadversions provoked the wrath of the Hibernians, and occasioned the publication of *An Heroic Epistle from Donna Teresa Pinna y Ruiz of Murcia to R. Twiss, with Notes by Himself*; Dublin, 1776, 8vo.: *Anecdotes of the Game of Chess*; *A Trip to Paris in July and August 1792*; 1793, 8vo.; and *Miscellanies*; 1805, 2 vols, 8vo. He died at an advanced age in 1821.

**TWIT**, *v. a.* Saxon *twītan*. To sneer; flout; reproach.

When approaching the stormy stowers

We mought with our shoulders bear off the sharp showers,

And sooth to saine, nought seemeth sike strife,

That shepherds so *twiten* each other's life.

When I protest true loyalty to her,

She *twits* me with my falsehood to my friend.

*Shakespeare.*

This these scoffers *twitted* the Christians with.

*Tillotson.*

Æsop minds men of their errors, without *twitting* them for what's amiss.

*L'Estrange.*

Galen bled his patients, till by fainting they could bear no longer; for which he was *twitted* in his own time.

*Baker.*



**TWITCH**, *v. a. & n. s.* } Sax. *twieccian*. To  
**TWITCH'GRASS**, *n. s.* } vellicate; pluck with  
 a quick motion; snatch: a quick pull; a contraction of fibres: a plant.

He rose, and *twitched* his mantle blue,  
 To-morrow to fresh woods, and pastures new.

Milton.

But Hudibras gave him a *twitch*  
 As quick as lightning in the breech. *Hudibras.*  
*Twitched* by the sleeve, he mouths it more and  
 more. *Dryden.*

With a furious leap  
 She sprung from bed, disturbed in her mind,  
 And feared at every step a *twitching* spirit behind.

Id.

The lion gave one hearty *twitch*, and got his feet  
 out of the trap, but left his claws behind. *Id.*

*Twitchgrass* is a weed that keeps some land loose,  
 hollow, and draws away the virtue of the ground.

Mortimer.

Mighty physical their fear is;  
 For, soon as noise of combat near is,  
 Their heart, descending to their breeches,  
 Must give their stomachs cruel *twitches*. *Prior.*

Other confederate pairs  
 Contract the fibres, and the *twitch* produce,  
 Which gently pushes on the grateful food  
 To the wide stomach, by its hollow road.

Blackmore.

A fit of the stone is the cure, from the inflammation  
 and pain occasioning convulsive *twitches*.

Sharp.

Thrice they *twitched* the diamond in her ear.

Pope.

**TWITE**. See FRINGILLA.

**TWITTER**, *v. n. & n. s.* To make a sharp  
 tremulous intermitted noise; be suddenly im-  
 pulsed: any sudden disorder, or passion.

The ancient errant knights  
 Won all their ladies hearts in fights,  
 And cut whole giants into fritters,  
 To put them into amorous *twitters*.

Hudibras.

This must be done;

Swallows *twitter* on the chimney-tops. *Dryden.*  
 The moon was in a heavy *twitter*, that her cloaths  
 never fitted her. *L'Estrange.*

A widow which had a *twittering* towards a second  
 husband, took a gossiping companion to manage the  
 job. *Id.*

They *twitter* cheerful, till the vernal months  
 Invite them back. *Thomson.*

**TWITTLETWATTLE**, *n. s.* A ludicrous re-  
 duplication of twattle. Tattle; gabble. A vile  
 word.

Inspid *twittletwattles*, frothy jests, and jingling  
 witticisms, inure us to a misunderstanding of things.

Id.

**TWIXT**. A contraction of betwixt.

Twilight, short arbiter *'twixt* day and night.

Milton.

**TWIST**, *v. a., v. n., &* Saxon *twæprian*;

**TWIST'ER**, *n. s.* [*n. s.*] Belg. *twisten*. To  
 form by complication or convulsion: be con-  
 tortured or involved: any thing made in this  
 way: the agent or instrument of twisting.

Do but despair

And, if thou want'st a cord, the smallest thread  
 That ever spider *twisted* from her womb  
 Will unravel thee. *Shakspeare.*

When avarice *twists* itself, not only with the prac-  
 tice of men, but the doctrines of the church; when  
 ecclesiastics dispute for money, the mischief seems  
 fatal.

Decay of Piety.

Through these labyrinths, not my grov'ling wit,  
 But thy silk *twist* let down from heaven to me,  
 Did both conduct and teach me, how by it  
 To climb to thee. *Herbert.*

To reprove discontent, the ancients feigned that  
 in hell stood a man *twisting* a rope of hay; and still  
 he *twisted* on, suffering an ass to eat up all that was  
 finished. *Taylor.*

All know how prodigal  
 Of thy great soul thou art, longing to *twist*  
 Bays with that ivy which so early kist  
 Thy youthful temples. *Waller.*

About his chin the *twist*  
 He tied, and soon the strangled soul dismissed.

Dryden.

Winding a thin string about the work *twists* its  
 breaking, by the fretting of the several *twists* against  
 one another. *Moxon's Mechanical Exercises.*

There are pillars of smoke *twisted* about with  
 wreaths of flame. *Burnet's Theory of the Earth.*

Minerva nursed him  
 Within a *twist* of twining osiers laid. *Addison.*

For well you *twist* the secret chains that bind  
 With gentle force the captivated mind. *Lyttleton.*

In an ileus, commonly called the *twisting* of the  
 guts, is a circumvolution or insertion of one part of  
 the gut within the other. *Arbuthnot on Aliments.*

Either double it into a pyramidal, or *twist* it into  
 a serpentine form. *Pope.*

When a *twister* a *twisting* will *twist* him a *twist*,  
 For the *twisting* of his *twist* he three *twines* doth in-  
 twist;

But if one of the *twines* of the *twist* do untwist,  
 The *twine* that untwisteth untwisteth the *twist*.  
 Untwirling the *twine* that untwisteth between,  
 He twirls with his *twister* the two in a *twine*;  
 Then twice having *twisted* the *twines* of the *twine*,  
 He *twitcheth* the *twine* he had *twined* in *twain*.  
 The *twain* that, in *twining* before in the *twine*,  
 As *twins* were *intwined*, he now doth untwine,  
 'Twixt the the *twain* intertwisting a *twine* more be-  
 tween,

He twirling his *twister*, makes a *twist* of the *twine*.  
*Wallis.*

**TWO**, *adj.*

**TWO'EDGED**,

**TWO'FOLD**,

**TWO'HANDED**,

**TWO'LEGGED**,

**TWO'PENCE**, *n. s.*

**TWO'SHAPED**.

A proselyta you make *twofold* more the child or  
 hell than yourselves. *Matt. xxiii. 15.*

Through mirkson air her ready way she makes,  
 Her *twofold* team, of which two black as pitch,  
 And two were brown, yet each to each unlike  
 Did softly swim away. *Faerie Queens.*

Our prayer against sudden death importeth a *two-  
 fold* desire, that death when it cometh may give us  
 some convenient respite; or, if that be denied us of  
 God, yet we may have wisdom to provide always be-  
 fore-hand. *Hooker.*

You all shew like gilt *twopences* to me. *Shakspeare.*

O thou! the earthly author of my blood,  
 Whose youthful spirit, in me regenerate,  
 Doth now with *twofold* vigour lift me up.  
 To reach at victory above my head,  
 Add proof unto mine armour. *Id.*

Between *two* hawks, which flies the higher pitch;  
 Between *two* dogs, which hath the deeper mouth;  
 Between *two* blades, which bears the better temper;  
 Between *two* horses, which doth bear him best;  
 Between *two* girls, which hath the merriest eye,  
 I have some shallow spirit of judgment. *Id.*

Fifteen chambers were to lodge us two and two together. *Bacon.*

Her register was a two-leaved book of record, one page containing the names of her living, and the other of her deceased members. *Ayliffe.*

With huge twohanded sway,  
Brandished aloft, the horrid edge came down,  
Wide wasting. *Milton's Paradise Lost.*

Next to the raven's age, the Pylian king  
Was longest lived of any two-legged thing. *Dryden.*

Time and place, taken for distinguishable portions  
of space and duration, have each of them a twofold  
acceptation. *Locke.*

A rational animal better described man's essence  
than a two-legged animal, with broad nails and with-  
out feathers. *Id.*

The two-shaped Ericthonius had his birth  
Without a mother, from the teeming earth. *Addison.*

Ewes, that erst brought forth but single lambs,  
Now dropped their twofold burdens. *Prior.*

Clarissa drew, with tempting grace,  
A twoedged weapon from her shining case. *Pope.*

TWOPENCE HERB, a species of *lysimachia*.

TYCHIUS, an artist of Hyle in Boeotia, who  
made Hector's seven-fold shield.—Hom. II. 7.

TYDE, a town of Hispania Tarraconensis—  
Sil. It. 3.

TYDEUS, a celebrated hero, the son of Cene-  
us, king of Calydon. Having killed a friend, by  
accident, he fled to Adrastus king of Argos, and  
married his daughter Deithyle, by whom he had  
the famous Diomedes. Adrastus, wishing to re-  
store his son-in-law Polynices to the throne of  
Thebes, sent Tydeus against Eteocles, whom he  
challenged to single combat and defeated. He  
again went against Thebes in the war of the Epi-  
goni, and was mortally wounded by Melanip-  
pus; but would have been cured by Minerva,  
who came on purpose, had he not offended the  
goddess by using the body of Menalippus barba-  
rously.—Hom. II. 4.

TYE, *n. s.* See TIE. A knot; bond or obli-  
gation.

Lay your  
Command upon me; to the which my duties  
Are with a most indissoluble tye  
For ever knit. *Shakespeare.*

I have no tye upon you to be true,  
But that which loosened yours, my love to you. *Dryden.*

Honour's a sacred tye, the law of kings,  
The noble mind's distinguishing perfection,  
That aids and strengthens virtue where it meets her,  
And imitates her actions where she is not;  
It ought not to be sported with. *Addison.*

Lend me aid, I now conjure thee, lend,  
By the soft tye and sacred name of friend. *Pope.*

TYE (Christopher), Mus. D., a celebrated  
English musician, born in Westminster, in the  
reign of Henry VIII. He was admitted Dr.  
in music at Cambridge, in 1545. Dr. Tye be-  
came instructor in that science to king Edward  
VI., and organist of the Chapel Royal, under  
queen Elizabeth. He composed a great number  
of Anthems.

TYGER, in zoology. See FELIS.

TYGER-CAT. See FELIS.

TYGER-WOLF. See CANIS.

TYKE, *n. s.* See TKE. Tyke in Scottish still  
denotes a dog, or one as contemptible and vile as  
a dog; and thence pernapns comes teague.

Base tyke, callest thou me host? now,  
By this hand, I swear I scorn the term. *Shakespeare.*

TYKE, in zoology. See CANIS.

TYLE, or TILE, in building, a sort of thin  
laminated brick, used on the roofs of houses; or,  
more properly, a kind of fat clayey earth, knead-  
ed and moulded of a just thickness, dried and  
burnt in a kiln like brick, and used in the cover-  
ing and paving of houses.

TYMBAL, *n. s.* Fr. *tymbal*. A kind of ket-  
tle drum.

Yet, gracious charity! indulgent guest!  
Were not thy power exerted in my breast,  
My speeches would send up unheeded prayer:  
The scorn of life would be but wild despair:  
A tymbal's sound were better than my voice,  
My faith were form, my eloquence were noise. *Prior.*

TYMPAN, among printers, a double frame  
belonging to the press, covered with parchment,  
on which the blank sheets are laid in order to be  
printed off. See PRINTING.

TYMPANUM, *n. s.* Lat. *tympanum*. A  
drum; a part of the ear, so called from its re-  
semblance to a drum.

The three little bones in *meatu auditorio*, by firm-  
ing the *tympanum*, are a great help to the hearing. *Wiseman.*

TYMPANUM, in mechanics, a kind of wheel  
placed round an axis or cylindrical beam, on the  
top of which are two levers or fixed staves for  
the more easily turning the axis in order to raise  
a weight required. The *tympanum* is much the  
same with the *peritrochium*; but that the cylin-  
der of the axis of the *peritrochium* is much  
shorter and less than the cylinder of the *tympanum*.

TYMPANUM, in anatomy. See ANATOMY,  
Index.

TYMPANY, *n. s.* Lat. *tympanum*. A kind  
of obstructed flatulence that swells the body like  
a drum; the wind dropsy.

He does not shew us Rome great suddenly,  
As if the empire were a *tympany*;  
But gives it natural growth, tells how and why  
The little body grew so large and high. *Suckling.*

Others, that affect  
A lofty stile, swell to a *tympany*. *Roscommon.*

Nor let thy mountain-belly make pretence  
Of likeness; thine 's a *tympany* of sense.  
A tun of man in thy large bulk is writ,  
But sure thou 'rt but a kilderkin of wit. *Dryden.*

The air is so rarified in this kind of dropsical tu-  
mour, as makes it hard and tight like a drum, and  
from thence it is called a *tympany*. *Arbuthnot.*

TYNDALE (William), a zealous English re-  
former, and memorable for having made the  
first English version of the Bible, was born on  
the borders of Wales before 1500. He was first  
of Magdalene-hall, Oxford. Afterwards he re-  
moved to Cambridge, and thence went to live  
with a gentleman in Gloucestershire as tutor to  
his children. There he showed himself so zealous  
for the doctrines of the Reformation that he  
was forced to leave the place. He then went to  
Germany, where he translated the New Testa-  
ment and the Pentateuch. These, being sent to  
England, made a great noise there; and the  
clergy procured a royal proclamation, prohibit-  
ing the buying or reading such translations. But



not satisfied with this, the clergy sent one Philips to insinuate himself into his company, and under the pretext of friendship betray him into custody. He was sent to the castle of Filford, about eighteen miles from Antwerp; and though the English merchants at Antwerp did what they could to procure his release, and letters were also sent from lord Cromwell and others out of England, yet Philips bestirred himself so heartily, that he was tried and condemned to die. He was first strangled by the hangman, and then burned near Filford castle, in 1536. While he was tying to the stake, he cried with a fervent and loud voice, 'Lord, open the king of England's eyes.'

TYNDARIDÆ, an ancient people of Colchis.

TYNDARIS, a town of Colchis on the Phasis.

TYNDARUS, king of Sparta, the husband of Leda, and father of Castor and Clytemnestra.

TYNE, NORTH, a river which rises on the border of Scotland, and Tyne (South), another river which rises on the border of Cumberland. These unite their streams at Hexham, thence dividing the counties of Durham and Northumberland, and passing Newcastle, fall into the German Ocean at Tynemouth. The Tyne forms the noble river of Newcastle, and is there navigable for vessels of 300 tons burden.

TYNEMOUTH, a borough and bathing town in Northumberland, situated at the mouth of the Tyne, 9 miles E. of Newcastle, and 286 N. by W. from London. The town of Tynemouth was erected into a borough by the Reform bill, and sends one member to parliament. The houses are in general well built, and some of them are even elegant; during the bathing season it is a place of fashionable resort, and all the inns and lodging-houses are filled with company. Tynemouth, as a bathing place, possesses many attractions. The walks, particularly that in the castle yard amidst the romantic ruins of Tynemouth priory, present many delightful and pleasing views. In the year 1807 there were erected very commodious and elegant baths.

TYNY, *adj.* Dan. *tynd.* Small.

He that has a little *tyny* wit,  
Must make content with his fortunes fit.

*Shakespeare.*

TYPE, *n. s. & v. a.* } Fr. *type*; Lat. *typus*;  
TYP'IC, *adj.* } Gr. *τύπος*. Emblem;  
TYP'ICAL, *adj.* } mark or prefiguration of  
TYP'ICALLY, *adv.* } something; a stamp:  
TYP'IFY, *v. a.* } to prefigure; to show in  
emblem; which is also the meaning of typify:  
typic, typical and typically follow this sense.

Clean renouncing

The faith they have in tennis, and tall stockings,  
Short bolstered breeches, and those *types* of travel,  
And understanding again the honest men.

*Shakespeare.*

He ratified ceremonial and positive laws, in respect of their spiritual use and signification, and by fulfilling all things *typed* and prefigured by them.

*White.*

The resurrection of Christ hath the power of a pattern to us, and is so *typified* in baptism, as an engagement to rise to newness of life.

*Hammond.*

Informing them by *types*

And shadows of that destined seed to bruise  
The serpent, by what means he shall achieve  
Mankind's deliverance.

*Milton.*

The Apostle shews the Christian religion to be in truth and substance what the Jewish was only in type and shadow.

*Tillotson.*

Hence that many coursers ran,

Hand-in-hand, a goodly train,

To bless the great Eliza's reign;

And in the *typic* glory show

What fuller bliss Maria shall bestow.

*Id.*

The Levitical priesthood was only *typical* of the Christian; which is so much more holy and honourable than that, as the institution of Christ is more excellent than that of Moses.

*Atterbury.*

TYPE (*τύπος*), in theology, an impression, image, or representation of some model, which is termed the antitype. In this sense the word occurs often in the writings of divines.

Types are to be regarded, therefore, not as mere conformities, or analogies, which the nature of things holds forth between them; nor arbitrary images arising merely from the casual resemblance of things; but there is required a particular institution of God to make a type, and a particular declaration of his that it is so. Gale divides types into historical and prophetic. The first are those used by the ancient prophets in their agitations and visions: the second, those in which things done, or ceremonies instituted in the Old Testament, prefigure Christ, or things relating to him in the New Testament. Or they are things which happened and were done in ancient time, and are recorded in the Old Testament, and which are found afterwards to describe or represent something which befell our Lord, and which relates to him and his gospel. E. gr. Under the law, a lamb was offered for a sin-offering, and thus an atonement was made for transgressions. John the Baptist calls Christ 'the lamb of God who taketh away the sins of the world,' and St. Peter tells Christians that they are redeemed 'by the blood of Christ, as of a lamb.' Hence we infer and conclude that the lamb was a type of Christ; and, upon considering it, we find that it has all that can be required to constitute a type; for it is in many respects a very just and lively representation of Christ. The lamb died for no offence of his own, but for the sins of others; so did Christ: the lamb could not commit sin by his nature, nor Christ by his perfection: the lamb was without bodily spot or blemish; Christ was holy and undefiled: a lamb is meek and patient; such was the afflicted and much injured Son of God.

These types are useful to persons who have already received Christianity upon other and stronger evidence, as they show the beautiful harmony and correspondence between the Old and New Testament; but they seem not proper proofs to satisfy and convince doubters, who will say perhaps, with the schoolmen, 'theologia symbolica non est argumentativa.' It should also be observed that unless we have the authority of Scripture we cannot conclude with certainty that this or that person, or this or that thing mentioned in the Old Testament, is a type of Christ, on account of the resemblance which we may perceive between them: but we may admit it as probable.

The ancient fathers, as well as the modern critics, have been greatly divided about the nature and use of the types and typical representations in the Old Testament; and it is this

makes one of the great difficulties in understanding the ancient prophecies, and in reconciling the New and Old Testament. There is no denying but that there were some types which the divine wisdom instituted to be the shadows and figures of things to come; but various writers run into an excess on this subject; some looking for types in every thing, like Origen, who discovered mysteries in the very caldrons of the tabernacle. A prudent man should be contented with the more sensible and obvious ones.

In reference to this subject, an able author maintains, that not the fathers only but St. Paul himself, was of the opinion, 'that Christianity was all contained in the Old Testament, and was implied in the Jewish history and law; both which are to be reputed types and shadows of Christianity.' In order to which, he quotes Hebrews, viii. 5, x. 1, and Colos. ii. 16, 17. He adds 'that the ritual laws of Moses, being in their own nature no other than types and shadows of future good things, are to be considered as having the effect of prophecies.' This is likewise the sense of Whiston and others; but the same author even quotes our Saviour speaking in behalf of this typical reasoning in that passage, Matthew xi. 13, where he affirms that 'the law prophecies; and that he came to fulfil the law as well as the gospel.'—Matthew v. 17; Disc. of the Grounds, &c.

But it has been with some reason observed, had the ancients, with the modern retainers of this typical system, expressly designed to have exposed Christianity, they could not have done it more effectually than by thus making every thing types and prophecies. Not that he denies the reality of such things as types. It is manifest there were many under the Old Testament; such were Zechariah's staves, beauty, and bands, c. xi. 7, 10, 14: such was Hosea's adulterous wife, chap. i. 2; and such were his children, v. 4, 6. The prophets designed by these to prefigure future events; but in these instances the reader is at once, by the declaration of the prophet, made to understand as much, and not left to his own conjectures about them after the events are over. In effect, all that is urged from Scripture for the typical or allegorical interpretations of the Jewish law, history, ceremonies, &c., it is asserted, may be set aside, without any violence to the Sacred Text, which may be explained on more natural and intelligible principles, and more consistently with grammar.

The word *τύπος* literally denotes no more than a copy or impression of any thing; and accordingly, in our translation, we find it sometimes rendered by print, sometimes by figure, sometimes by fashion, and sometimes by form. Hence also the word is figuratively applied to denote a moral pattern; in which sense it signifies no more than example and similitude.

Again, the word *αντίτυπος*, antitype, in Scripture, signifies any thing formed according to a model or pattern; and thus, in the Epistle to the Hebrews, the tabernacle, and holy of holies, being made according to the pattern shown to Moses, are said to be antitypes, or figures, of the true holy places. In the like sense, St. Peter, speaking of the flood and the ark, by which eight persons were saved, calls baptism an antitype to

them; by which he expresses no more than similitude of circumstances.

The other words used in Scripture to imply a future event, prefigured by some foregoing act, are, *ὑποδειγμα*, rendered by imitation and example; and *σεία*, shadow. Such being the import of all the terms used in the New Testament writers, seeming to imply any prefiguration of future events under the Gospel, it is observed, 1. That to argue from types is only to argue from examples or similitudes; and, consequently, that all inferences drawn from such reasonings are no farther conclusive than reasonings from similitudes are. The intent of similitudes is only to help to convey some ideas more clearly or strongly; so that to deduce consequences from a simile, or infer any thing from other parts of the simile, than what are plainly similar, is absurd. 2. That it cannot be proved that the ceremonies of the Mosaic law were ever designed to prefigure any future events in the state of the Messiah's kingdom. No such declared prefigurations are mentioned in the writings of the Old Testament, whatever notions prevailed among the writers who immediately followed. It is granted that the apostles argued from the rites in the Mosaic institution; but this appears to have only been by way of illustration and analogy.

There is certainly a general likeness in all the dispensations of Providence; an analogy of things in the natural as well as the moral world, from which it is easy arguing by way of parity, and it is very just and usual so to do; but that one of these dispensations was therefore given to presignify another that was future can never be proved, unless it be expressly declared. It is in the same way of similitude, he maintains, we are to understand St. Paul, where he says 'that Christ our passover is sacrificed for us.' And thus we are to understand John the Baptist, when he calls our Saviour the 'Lamb of God.' There was this similitude of circumstance, that Christ was slain on the same day with the paschal lamb; that he died about the same time of the day when the priests began their hillel; that not a bone of the one or the other was broken. And that, as the paschal lamb was without blemish, so was Christ without sin. From these, and other circumstances, the apostle applied the term passover to Christ. Thus, also, we are to account for what St. Paul calls the baptism of the children of Israel in the cloud, and in the sea; and for the comparison betwixt the high-priest entering the holy place every year, and Christ entering into heaven. See Sykes's Essay on the truth of the Christian Religion, 1725.

TYPE, in medicine, is used to denote the order observed in the intension and remission of fevers, pulses, &c.

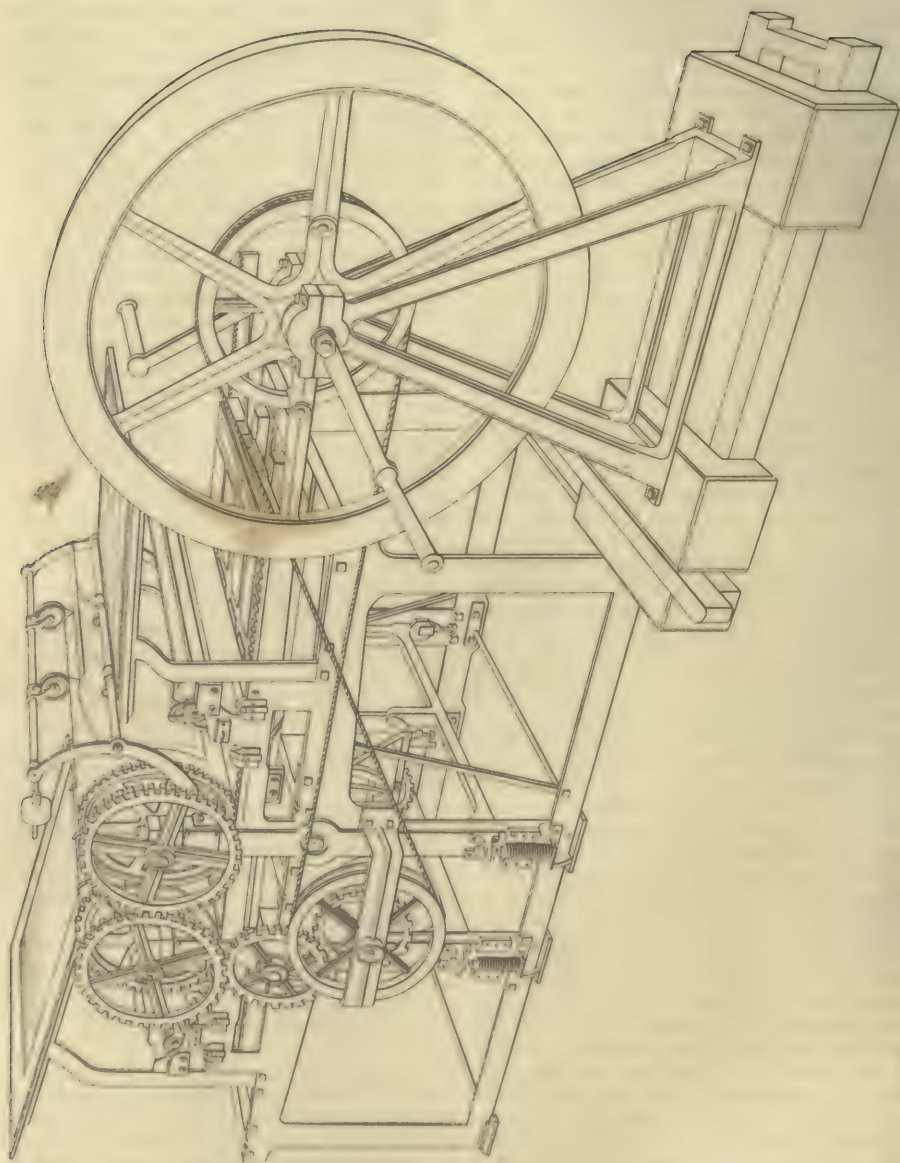
TYPHA, cat's tail, or reed mace, in botany, a genus of plants belonging to the class of monœcia, and order of triandria; and in the natural system ranging under the third order, calamaria. The amentum of the male flower is cylindrical; the calyx is tripetalous, but scarcely distinguishable; there is no corolla.

TYPHÆUS, in the Grecian mythology, a giant, the son of Tartarus and Terra, who had 100 heads like those of a dragon, flames of fire came from his mouth, and he uttered the most





PRINTING  
TYPOGRAPHY





infernal yells. But of all the deities Minerva alone stood undaunted at him: she trusted to her arms, and still more to her wisdom, for sufficient defence against all the fiery darts of Typhæus.—Ovid Met. v. Hyg. Fab.

TYPOGRAPHY, *n. s.* Fr. *typographie*; Lat. *typographia*. Emblematical, figurative, or hieroglyphical representation: the art of printing. Those diminutive and pamphlet treatises daily published amongst us, are pieces containing rather *typography* than verity. *Brown's Vulgar Errors.*

TYPOGRAPHY. Under the article PRINTING was given the history of this important art, and of those improvements to which the ingenuity of modern times had effected in its mode of operation. It only remains under this article to describe a printing machine invented by Mr. Napier; who is now employed upon others calculated for still greater speed, but which are not sufficiently perfect for description.

Mr. Napier's name is well known as a most successful inventor as well as manufacturer of printing machines, both for newspaper and book printing. Plate II., PRINTING, represents a perspective view of his Nay-peer machine for book work, by which steam power is superseded, the motion being given by two men turning a fly-wheel, which acts as the impelling power. There are some peculiar and important novelties connected with this machine which must not be overlooked. The first consists in a most ingenious contrivance for taking hold of the sheet from the supplying board, retaining it while receiving the first-side impression, and releasing it at the precise moment that the corresponding apparatus in the other cylinder executes the same movement for the impression of the reiteration. This beautiful mechanism is contained in the interior of the impression cylinders, which have openings along their circumference, through which the grippers perform their operations. Upon their action depends that important desideratum of press-work, accurate register, or the backing of the pages on the paper.

Three or more pairs of these grippers, working upon the same axis, are employed in each cylinder. At the moment the first or white paper impression cylinder arrives at the proper position (the upper limb of each pair having been previously opened to relieve the former sheet, and the boy having by this time laid on another sheet to the appointed gauge), they again instantly close upon the advanced edge of the paper without the velocity of the machine being in the least interrupted for that purpose. The sheet is by this means wrapped closely round the periphery of the cylinder, and there retained while it receives the impression on one side, after which, and upon the arrival of the cylinders, or rather the grippers contained in the cylinders, at their proper position, that is, where the cylinders present a tangent to each other, and whilst passing this point, the grippers contained in the second cylinder take hold of the sheet close by the others, whilst they at the same instant release their hold, and the sheet is, in like manner, conveyed round the second cylinder to be perfected, or receive the impression on the other side: the instant this is effected, the grippers again let go their hold, and the sheet, printed perfect, or on

both sides, is discharged from the machine to the receiving board, by the action of one or more pulleys and fine cords, so that one sheet is going into the machine and another coming out at the same instant, as may be seen in the engraving.

Yet, notwithstanding the beauty and accuracy of this movement, the part of all others that reflects the highest credit upon the mechanical skill of the inventor is the rising and falling of the impression cylinders; for it is principally owing to this singular contrivance, that he has been enabled so wonderfully to compress and simplify his machine as to bring it within the capability of so small a power to produce so much work, viz., 1200 perfect sheets per hour; it is this which admits of the cylinders being made of the size represented, and placed so close to each other as to be enabled to turn the sheet, and perfect, without the intervention or assistance of any other cylinders; for no sooner has the first cylinder given its impression than it instantly rises up, to avoid coming in contact with either of the forms, until it is again its turn to impress or print; while at the same instant the second cylinder descends for the purpose of giving the second impression. Thus the cylinders are alternately rising and falling during the whole progress of working; and it may be curious to observe that when down they are firmly held in their positions while they give the impression, and until their time arrives to be disengaged, and rise again; these cylinders are easily adjusted to any required degree of pressure, and that even without interrupting the progress of the machine; and the inking apparatus, of which there is a set for either form, is provided with various important contrivances which fully answer every purpose required in that indispensable part of the operation of printing; this machine occupies but very little space, about five feet by ten, or not more square feet than a common press, bank, and ink-stand; but, although thus compact, it contains a vast quantity of extremely curious mechanism.

Mr. Napier's newspaper machines are constructed with one or two cylinders, according to the speed required, from 1000 to 2800 in the hour; but, these being upon the same general principle as the above, we think it unnecessary to give any further drawing or description of them. But, before concluding the subject of Napier's printing machines, we would briefly state that he has lately secured a patent for two additional, one for newspaper printing, and the other for fine book work; each of which possesses a most unusual degree of novelty and (should he prove correct) a no less degree of merit; the first is intended to print by the power of two men at the extraordinary and incredible rate of 5000 per hour, and the greatest marvel is all from one printing cylinder and surface; the second is a flat surface machine in which both power and resistance are made equally useful, a thing we believe unthought of before, therefore two impressions are taken at the same instant and with the same expense of time and power as is necessary to take one; this machine is intended to print at the rate of 800 or 1000 sheets on both sides per hour by the easy labor of one man.

**TYRA**, or **TYRAS**, a river of European Sar-matia, which runs into the Euxine Sea, between the Danube and the Borysthenes; now called Dniester. Ovid.

**TYRANNION**, a celebrated grammarian in Pompey's time, was a native of Amisus in Pontus. He was the scholar of Dionysius of Thrace at Rhodes. He fell into the hands of Lucullus, when that general defeated Mithridates VII. and seized his dominions. This captivity of Tyrannion was no disadvantage to him, as it procured him an opportunity of being illustrious at Rome and raising a fortune. He spent it, among other things, in making a library of above 30,000 volumes. He died very old, being worn out with the gout. His care in collecting books contributed very much to the preservation of Aristotle's works.

**TYRANT**, *n. s.*

**TYR'ANNESS**, *n. s. fem.*

**TYRAN'NIC**, *adj.*

**TYRAN'NICAL**,

**TYRAN'NICALLY**, *adv.*

**TYRAN'NICIDE**, *n. s.*

**TYE'ANNISE**, *v. n.*

**TYR'ANNOUS**, *adj.*

**TYE'ANNY**, *n. s.*

periously; cruel, despotick, or severe master: tyranness is the feminine: tyrannic, tyrannical, and tyrannous, like or befitting a tyrant; the adverb corresponding: tyrannicide, the act of killing a tyrant: tyrannise is to play the tyrant: tyranny, absolute, imperious power or government; rigorous and cruel command; inclemency.

It is strange to see the unmanlike cruelty of mankind, who, not content with their tyrannous ambition to have brought the others virtuous patience under them, think their masterhood nothing without doing injury to them.

Love to a yielding heart is a king, but to a resisting is a tyrant.

They were, by law of that proud tyranness, Provoked with wrath and envy's false surmise.

Lately grown into a loathing and detestation of the unjust and tyrannous rule of Harold, an usurper.

While we trust in the mercy of God through Christ Jesus, fear will not be able to tyrannise over us.

I would not be the villain that thou think'st For the whole space that's within the tyrant's grasp, And the rich east to boot.

Charge him home that he affects Tyrannick power.

To have a giant's strength; but it is tyrannous To use it like a giant.

Fear you his tyrannous passion more, alas! Than the queen's life?

Domitian had been tyrannical; and in his time many noble houses were overthrown by false accusations.

Suspicious dispose kings to tyranny, and husbands to jealousy.

To tears and prayers, again she feels the smart Of a fresh wound from the tyrannick dart.

The house of woe, and dungeon of our tyrant.

Subdue and quell, o'er all the earth, Brute violence, and proud tyrannick power. Consider those grand agents and lieutenants of the devil, by whom he scourges and plagues the world under him, to wit, tyrants; and was there ever any tyrant who was not also false and perfidious?

Thou mean'st to kill a tyrant not a king. Our sects a more tyrannick power assume, And would for scorpions change the rods of Rome.

The cities fell often under tyrannies, which spring naturally out of popular governments.

He does violence to his own faculties, tyrannies over his own mind, and usurps the prerogative that belongs to truth alone, which is, to command by its own authority.

When tyrant custom had not shackled man, But free to follow nature was the mode.

**TYRANT**, among the ancients, denoted simply a king or monarch; but the ill use which many invested with that character made of it has altered the import of the word, and tyrant now carries with it the idea of an unjust or cruel prince, who invades the people's liberty, and rules in a more despotic manner than the laws of nature or of the country allow.

**TYRE**, *n. s.* Properly tire. See **TIRE**. I have seen her beset and bedecked all over with emeralds and pearls, ranged in rows above the tyre of her head.

**TYRE**, a celebrated ancient city of Asia, on the coast of Syria. It was built, according to some writers, 2760 years before the Christian era. There were two cities of that name; the one called Palætyrus, situated on the continent; and the other the city of Tyre, built on an island about half a mile from the shore. It was about nineteen miles in circumference, including Palætyrus; the town on the island was about four miles round. The buildings of Tyre were very magnificent; the walls were 150 feet high, and broad in proportion. This city was at one period the most famous commercial city in the world. It resisted Nebuchadnezzar king of Babylon for thirteen years; at the end of which, wearied with endless efforts, the inhabitants resolved to place the sea between them and their enemy, and passed accordingly into the island. The new city stood out against Alexander the Great for seven months; and before he could take it he was obliged to fill up the strait which separated the island from the continent. See **MACEDON**. It was repaired afterwards by Adrian, and became the metropolis of the province. It afterwards fell into the hands of the Arabs; and after being taken by Baldwin II., king of Jerusalem, it was destroyed by the sultan of Egypt in 1289, and abandoned, never more to rise from its ruins. An excellent account of its situation and modern state may be found in Volney's Travels, vol. ii. It now consists of a small village, composed of wretched huts, containing about fifty or sixty poor families. Its harbour is now almost choked up. It is called Sour or Tsour by the Orientals. See **SUR**.

**TYRE**, or **SOVR**, a sea-port of Syria, occupying the site of the most celebrated commercial city of antiquity, the ancient Tyre. This was first built on the continent; but, being taken,



and in a great measure destroyed, by the kings of Assyria, a new city was founded on an island at a little distance. In the time of the Romans, Tyre old and new, including the suburbs, were stated to have a circumference of nineteen miles. During the first centuries it was distinguished for its zeal in the cause of Christianity, and was made the first archbishopric under the patriarchate of Jerusalem. During the crusades, it became the subject of frequent contest. For some centuries this once magnificent place has presented to the traveller only the aspect of a ruined village. It appears to be beginning somewhat to revive. The peasantry are coming down from the neighbouring mountains, to carry on the trade for which it affords opportunity: it contains, however, at most 200 inhabited houses, two-thirds of which are occupied by the people called Mutualis, while the rest consist of Greek Catholics. There are twelve Maronite families, but not a single Jew. The chief staple is tobacco, sent to Cairo and Damietta, where it is sold at from £20 to £24 a cantar. To the same places are sent charcoal, a number of dried figs, and large faggots of wood. There is a large pottery and a fishery, which together are farmed for 1400 piastres (about £115). Mr. Turner does not mention the corn, of which, in Pococke's time, great quantities are said to have been exported to Malta. The old walls may still be traced, forming an irregular square of about a mile. In many places they are mended with large columns of red and gray granite, and two or three rusty old cannon are mounted upon them. On the south and east they are thirty feet high; but on the west the sand reaches almost to their top. At the south-west and south-east corners are remains of ancient niches. The only gate is one of wood on the eastern side; while on the north, part of the wall is broken down, to allow a passage. The harbour will now admit only boats, stretching eighty feet along the shore, and 150 along banks that run into the sea. Near the walls, at the east end, are the ruins of two square Arab towers, one thirty-five, and the other sixty feet high, which Pococke supposes to have served as reservoirs of water from the aqueduct, and for its distribution over the city. He observed remains of a thick wall from one to the other, which probably belonged to the aqueduct itself. The houses are all built from ruins. Without the walls are ruins of a very large church, built of hewn stone, in the Syrian style; also very perfect remains of several buildings to the north, which probably belong to the archiepiscopal palace. There are remains of several other churches. At Seyd Mr. Turner picked up a medal of ancient Tyre. Long. 35° 20' E., lat. 33° 10' N.

TYRNAU, or Nagy-Szombath, a town in the west of Hungary, on the Tyra. It stands in a fertile but rather unhealthy district: it has been the seat of the chapter of Gran since 1543, and contains so many churches and monasteries that it has got the name of Little Rome. It is the seat of the court of appeal for the circle on the north of the Danube, and contained the national university until its removal to Buda in 1777.

Here are held eight annual fairs, which are well attended. Inhabitants 5000. Twenty-five miles N. N. E. of Presburg.

TYRIAN DYE. See MUREX, and PURPURA.

TYRO, *n. s.* Properly *tiro* as in the Latin. One not yet master of his art; one in his rudiments.

There stands a structure on a rising hill,  
Where *tyros* take their freedom out to kill.

*Garth's Dispensary.*

TYRO, in fabulous history, a daughter of Salmoeneus, king of Elis, who, being harshly treated by her step-mother Sidero, was removed by her uncle Cretheus to the banks of the Enipeus; where Neptune, assuming the form of that river-god, had two sons by her, the celebrated Pelias and Neleus, who, being exposed, were preserved by shepherds, and avenged their mother's injuries on Sidero. She afterwards married her uncle Cretheus, by whom she had Æson, Amythaon, and Pheres. Hom. Od. 11, 234.

TYROL, a province of the Austrian empire, bounded by Bavaria, Salzburg, Carinthia, Austrian Italy, and Switzerland, and lying between Long. 10° 2' and 12° 20' E., and lat. 45° 46' and 47° 46' N. Its form approaches to the circular, but its boundary is marked by frequent projections. Its area is about 11,000 square miles, and its population about 720,000, thinly scattered. It is divided into seven districts or circles, viz.

| Circles.                  | Chief Towns. |
|---------------------------|--------------|
| The Lower Innthal,        | Schwatz.     |
| The Upper Innthal,        | Imbst.       |
| The Pusterthal,           | Brunecken.   |
| The Vorarlberg,           | Bregenz.     |
| The Adige.                | Botzen.      |
| Italian Confines of       | Trent.       |
| Italian Confines of       | Roveredo.    |
| The capital is Innsbruck. |              |

The Tyrol is the most mountainous of all the countries of Europe. A chain of primitive formation, containing mountains of the greatest height (the Orteles of 14,000 feet, the Glogner of 12,000, and the less elevated, but still lofty mass of Mount Brenner), traverses its whole extent, entering from Switzerland on the west, and terminating in the east, at the Kahlenberg, near Vienna. On each side of this is a secondary chain, one of which separates Tyrol from Bavaria, the other from Italy. These divide Tyrol into more than twenty valleys, the most remarkable of which are the three which contain the large rivers of the Inn, the Eysach, and the Adige. The Adige in the south of Tyrol, like the Rhone in the south of Switzerland, is the recipient of all the mountain streams on one side of the country; while the Inn, having, like the Rhine, a longer course, and a greater volume of water, absorbs all those in the central and northern parts of the country. No country has a more romantic road than that over Mount Brenner along the Adige. It is indeed sometimes attended with danger, from the rapid increase of the mountain streams, or from the falls of rocks, or snow after thaws; but accidents are rare.

The climate of the Tyrol is of course cold, not only in winter, but in spring: but in sum-

mer the valleys are hot, particularly when open to the south. The most pleasant season is autumn.

Most of the minerals from gold to coal are found here; but the only mines that have been worked with advantage are those of salt, iron, copper, and calamine. Mineral springs are also abundant. The Tyrolese raise corn and vegetables in spots of very difficult access, but the quantity produced is inadequate to their wants, which are supplied by the import of corn in exchange for the wine and silk raised in the southern valleys, and of the cattle exported from the smaller vales of the north. The farther products are flax, hemp, and tobacco. Among the wild animals is the chamois, marmotte, and Alpine goat.

During winter the women spin flax, knit caps and stockings, or weave baskets and straw hats. The men are employed in making wooden utensils or toys, and in some places in the singular occupation of training canary birds for sale. The streams from the mountains are made to turn a number of wheels, which drive the machinery necessary for their labors. They associate less in towns, or even in villages, than is common in less mountainous countries: hence the limited population of their low towns.

In a country which so much resembles Wales, and the Highlands of Scotland, it is natural to anticipate a similar emigration in the summer season. Suabia and Bavaria are the chief outlets of the Tyrolese. The young men go there to sell their petty wares, or to act as shepherds during summer; others go to a much greater distance.

The inhabitants of the southern confines of Tyrol partake of the character of their Italian neighbours. It is after passing Trent, and penetrating into the heart of the Alpine territory, that the traveller finds himself among a people religiously attached to their ancient usages, to domestic affections, and to the unostentatious manners and frugal mode of living of their forefathers. The dress of the peasantry is here peculiar: its principal embellishment consists in a straw hat ornamented with ribbons and nosegays: that of the women, far from elegant, and even ridiculous in the eye of a foreigner, is composed of a gown both thick and short, of stockings with cross stripes, and of a cap tapering like a sugar-loaf. There necessarily prevails a considerable diversity of language. That of the north of Tyrol is the Bavarian dialect of German; that of the south is also German, but mixed with a number of words which are obsolete in that country. In particular villages, foreign languages are understood, in consequence of the inhabitants having directed their emigration to the countries where they are spoken: thus, in the village of Greden, Portuguese is spoken with considerable accuracy. The music of the Tyrolese has a very simple and frequently plaintive character, and every parish has its haunted spot. The sides of the bridges and fronts of the houses are covered with images and other objects of devotion.

The Tyrol has a representative body on the plan of our German ancestors, composed of four orders, the clergy, nobility, deputies of the

towns, and deputies of the peasants. No new tax can be imposed without the consent of this body; and, when it is granted, the sovereign is bound to make an explicit acknowledgment that the states might have refused it. In addition there exists a permanent deputation and tribunal, in which the peasantry are represented. The only imposts are a land tax payable indiscriminately by all classes, and a charge on the higher classes, consisting of a per centage on pensions, tithes, and rents. The militia duty is light, the time of muster and exercise not exceeding forty days in the year. A desire, or rather a tenacity, of personal independence, is a conspicuous feature in the character of the Tyrolese. Though fond of the chase, and excellent marksmen, they are averse to compulsory service in the field. The Austrian cabinet in vain endeavoured in 1785 to enforce a conscription. In the defence of their country, however, they display the greatest alacrity.

The Tyrol formed in early ages a part of the ancient Rhoetia, a country which, from its difficulty of access, and the independent spirit of its inhabitants, so long offered resistance to the Romans. In the disorders that followed the downfall of the Roman empire, it became divided into a number of petty lordships, which all acknowledged the supremacy of the ancient princes and dukes of Bavaria. On the fall of the house of Guelf, the Tyrolese became immediate subjects of the empire, and the petty lordships were some time after absorbed under two heads, the dukes of Meran, and the counts of Tyrol. These families being united by marriage the whole country was governed after 1288 by a single sovereign; and the last of the race, Margaret Mautasche, presented the succession to the dukes of Austria, who were her nearest relations. In their hands Tyrol has since remained.

TYRONE (the ancient Tir-yn-fail) is a county in the province of Ulster and kingdom of Ireland: it is bounded on the north by Londonderry county; on the south by Monaghan county; on the east by Lough-Neagh and a part of Antrim; and on the west and south-west by parts of Donegal and Fermanagh. Its area measures fifty-four miles in length by forty-two in breadth. It is divided into four baronies, viz. Clogher, Dungannon, Omagh, and Strahane; thirty-five parishes; has one borough town, Dungannon, and returns, in all, three members to the imperial parliament. The chief towns are Ballygawley, Fintona, Five-mile-town, Dungannon, Moy, Caledon, Aghnacloy, Armagh (the assize town of the county), Dromore, Newtown Stewart, Claudy, and Strahane, besides the city of Clogher, where the bishop of this rich see resides. Ballygawley is remarkable for its manufacture of excellent gloves, and near it is an ancient castle, the scene of the narrative of the Spectre that appeared to the lady of Sir Tristram Beresford. At Dungannon is a richly endowed classical school, and in its vicinity the linen manufacture flourishes happily. Caledon gives title of viscount to the family of Alexander, and Strahane is a flourishing little town.

There are about sixty schools in this county, supported either wholly or in part by charitable



funds. Sir Erasmus Smyth's charities, the London Hibernian Society, Lady Caledon's bounty, Sunday School Society, and parochial contributions, are their chief, though not their only sources of support. Tyrone anciently gave the title of earl to the illustrious house of O'Neal; but, after the attainder of the chieftain called the Great O'Neal, the family of Le Poer enjoyed that dignity: the title is now merged in the houses of the Beresfords, marquises of Waterford. The face of this county, though not picturesque, is a good deal varied. The mountains of Curragh, Longfield, and Mounterlony, are prominent features; and the rivers of the Blackwater, Lookstown, and Cannon, while they sufficiently irrigate, afford some pleasing scenery. This latter is called, as it passes along towards the sea, the Mourne and the Toyle. There are besides many streams, but they are tributary to the rivers enumerated. Bog also, as in almost all counties in Ireland, is found in this, amounting to about 4000 acres in the part already surveyed. South-west of Lough-Neagh is 'School land bog,' which might be drained by a deep cut communicating with the navigable rivers Bann and Blackwater. In the same manner the bogs of Newton Glens and Duncrow might be converted into profitable land. Few counties in Ireland present greater difficulties to the practical geologist or miner than Tyrone; limestone, ironstone, and sulphureous coal, exist here in abundance: but so numerous are the dislocations, slips, or faults, as they are called, so well known to practical men, that shafts are sunk or levels driven at very great hazard of ultimate loss. The Tyrone colliery, at Coal Island, however, is at full work. A navigation extends from Coal Island to the Blackwater, a distance of three miles, and thence by a short cut across the isthmus of Maghuy into Lough-Neagh, by which the bar of the river Blackwater, on which there are but twenty-two inches of water in summer time, is avoided. From the colliery basin a railway is carried to the mines. The success of this undertaking will of course justify speculations in other parts of the Tyrone coal district; this will lead to a more accurate geological knowledge of the district, and hence the working of coal mines here will be a work of greater profit and more certainty.

TYRRHENI, the ancient inhabitants of Etruria.

TYRRHENIAN SEA, TYRRHENUM MARE, that part of the Mediterranean which washes the coast of Etruria.

TYRTEUS, an Athenian general and musician. He was called to the assistance of the Lacedæmonians in the second war with the Messenians, about 685 B. C.; and a memorable victory which they obtained over that people is attributed to the animating sound of a new military flute or clarion, invented and played upon by Tyrtæus. Fragments of his poetry, in elegiac verse, are preserved in Stobæus, Lycurgus Orat. in Fulvius Ursinus, and in the Oxford edition of Eleg. et Lyric Frag. et Scholia, 1759. *Εα Συζουενα*, &c.

TYRWITT (Thomas), a learned writer, born in 1730, and educated at Eton and Queen's Col-

lege, Oxford. In 1755 he was elected a fellow of Merton, which he afterwards resigned. In 1761 he became clerk of the House of Commons. He published an edition of Aristotle's Poetics, and also of Chaucer. He also wrote Notes on Shakspeare, &c. He died in 1786.

TYSILIO, a Welsh poet, historian, and divine, who flourished in the end of the sixth and beginning of the seventh century. He wrote a Chronicle of Britain; from which Geoffry of Monmouth compiled his Fabulous History of Britain.

TYSON (Edward), M. D. and F. R. S., a learned physician, born at Bristol, in 1650, and educated at Magdalen Hall, Oxford, where he studied physic, and graduated. He settled in London, and became F. R. S. He wrote many useful papers in the Society's Transactions, was appointed physician to Bethlehem and Bridewell, and published Phocæna, or the Anatomy of a Porpoise; 4to. Ephemeridis Vita, or the Natural History and Anatomy of the Ephemeris. Orang Outang, or the Anatomy of a Pigmy, compared with that of a Monkey, an Ape, and a Man; 4to. He died suddenly, in 1708.

TYTLER (William), esq., an able writer, was born at Edinburgh in 1711. He was the son of Mr. Alexander Tytler, a writer. He was educated at the High School and the university of Edinburgh. In 1747 he was admitted into the Society of Writers to the Signet, and he honorably exercised this profession till his death in 1792. He was the author of an Historical Enquiry into the Evidence against Queen Mary, and Dissertation on her Marriage with the Earl of Bothwell; in which works he vindicated her character. He collected the Poetical remains of James I., King of Scotland; and wrote a Dissertation of Scottish Music; Observations on the Vision, a poem; and a treatise on the Fashionable Amusements in Edinburgh during the last Century.

TYTLER (Alexander Fraser), lord Woodhouselee, son of the former. This elegant and accomplished scholar died suddenly at Edinburgh on the 5th of January 1813. He formerly held the important situation of deputy judge advocate for Scotland, and professor of universal history in the university of Edinburgh. He published a Treatise on Military Law; and Elements of General History, in 2 vols. 8vo., which has run through several editions. He published also a very valuable Essay on Translation, in 1 vol. 8vo., and An Historical and Critical Essay on the Life and Character of Petrarch, 8vo. He was appointed a senator of the College of Justice in 1802, and, according to the custom of the Scottish judges, assumed the title of lord Woodhouselee. He was made a commissioner of justiciary in 1811. He was a respectable and upright judge, and particularly distinguished as a polite scholar and an elegant writer. His Memoir of the Life of Lord Kames, 2 vols. 4to., and his Critical Essay on the Life of Petrarch, will long perpetuate his name.

TZETZES (John), grammarian, was born at Constantinople in the twelfth century. He wrote Commentaries upon Lycophon's Cassanra, and a work entitled Chiliades. His works were printed at Oxford, by Potter, in 1697, folio.

## U &amp; V.

V has two powers expressed in modern English by two characters, V consonant, and U vowel, which ought to be considered as two letters; but, as they were long confounded while the two uses were annexed to one form, the old custom still continues to be followed. U, the vowel has two sounds; one clear, expressed at other times by *eu*, as obtuse; the other close, as approaching to the Italian *u*, or English *oo*, as obtund. V, the consonant, has a sound nearly approaching to those of *b* and *f*. With *b* it is by the Spaniards and Gascons always confounded, and in the Runic alphabet is expressed by the same character with *f*, distinguished only by a diacritical point. Its sound in English is uniform. It is never mute.

U, u, V, or v, is used, 1. As a letter; 2. As a numeral; and 3. As an abbreviation. I. As a letter it is the twentieth of our alphabet, and the fifth vowel. It is formed in the voice by a round configuration of the lips, and a greater extrusion of the under one than in forming the letter *o*, and the tongue is also more canulated. The sound is short in crust, must, tun, tub; but is lengthened by a final *e*, as in tune, tube, &c. In some words it is rather acute than long; as in brute, flute, lute, &c. It is mostly long in polysyllables; as in union, curious, &c., but in some words it is obscure, as in nature, venture, &c. This letter, in the form of V or v, is properly a consonant, and as such is placed before all the vowels; as in vacant, venal, vibrate, &c. Though the letters *v* and *u* had always two sounds, they had only the form *v* till the beginning of the fourth century, when the other form was introduced, the inconvenience of expressing two different sounds by the same letter having been observed long before. II. As a numeral V stands for five; and with a dash added at top, thus  $\bar{V}$ , it signifies 5000. III. As an abbreviation, among the Romans V. A. stood for veterani assignati; V. B. viro bono; V. B. A. viri boni arbitrati; V. B. F. vir bonæ fidei; V. C. vir consularis; V. C. C. F. vale, conjux charissime, feliciter; V. D. D. voto dedicatur; V. G. verbi gratia; Vir. Ve. virgo vestalis; VL. videlicet; V. N. quinto nonarum.

VACANT, *adj.* } Fr. *vacant*; Lat. *vacans*.

VACANCY, *n. s.* } Empty; unfilled; void: hence at leisure; disengaged: the noun substantive corresponding.

They were content to bribe them with the nomination of some bishops, and disposal of the revenues of some churches during the *vacancies*. *Lesley.*

They which have the government scatter the army abroad, and place them in villages to take their victuals of them, at such *vacant* times as they lie not in the camp. *Spenser.*

How is 't,

That thus you bend your eye on *vacancy*,  
And with the incorporal air do hold discourse?

*Shakespeare. Hamlet.*

When alone, or in company, they sit still without doing any thing, I like it worse; for all dispositions to idleness or *vacancy*, even before they are habits, are dangerous. *Wotton.*

Religion is the interest of all; but philosophy of

those only that are at leisure, and *vacant* from the affairs of the world. *More's Divine Dialogues.*

Why should the air so impetuously rush into the cavity of the receiver, if there were before no *vacant* room to receive it. *Boyle.*

If, sometimes, each other's eyes we meet,  
Those little *vacancies* from toil are sweet. *Dryden.*

In the *vacancy* of a bishop, the guardian of the spiritualities was summoned to parliament in the bishop's room. *Ayliffe.*

Others, when they allowed the throne *vacant*, thought the succession should immediately go to the next heir. *Swift.*

The reader finds a wide *vacancy*, and knows no how to transport his thoughts to the next particular, for want of some connecting idea.

*Watts's Logic.*

VACATE, *v. a.* } Lat. *vacō*. To annul.  
VACA'TION, *n. s.* } make void; make of no authority; make vacant: the noun substantive corresponding.

As these clerks want not their full task of labour during the open term, so there is for them whereupon to be occupied in the *vacation* only.

*Bacon's Office of Alienation.*

That after-act *vacating* the authority of the precedent, tells the world that some remorse touched even Stafford's most implacable enemies.

*King Charles.*

*Vacation* is all that time which passes between term and term at London. *Cowell.*

He *vacates* my revenge;  
For, while he trusts me, 'twere so base a part  
To fawn, and yet betray. *Dryden.*

The necessity of observing the Jewish sabbath was *vacated* by the apostolical institution of the Lord's day. *Nelson.*

VACCA BERLINGHIERI (Francis), M. D., a native of Ponsacco, near Pisa, studied in the university of that city, and afterwards became professor of surgery. When the Brunonian theory of medicine (see JOHN BROWN) began to prevail in Italy, he attacked it in his *Meditazioni sull' Uomo malato e sulla nuova Dottrina di Brown*, 1795, 8vo., and was offered the chair of clinical medicine at Pavia, in 1796; but his attachment to his native country induced him to refuse it. He died October 6th, 1812.

VACILLANCY, *n. s.* } Fr. *vacillant*; Lat.

VACILLA'TION. } *vacillans, vacillo*. A state of wavering; fluctuation; inconsistency: vacillation is the word in modern use.

I deny that all mutability implies imperfection, though some does, as that *vacillancy* in human souls, and such mutations as are found in corporeal matter. *More's Divine Dialogues.*

The muscles keep the body upright, and prevent its falling, by readily assisting against every *vacillation*. *Derham.*

VACCINATION, variola vaccina, or the cow-pox. Any pustulous disease affecting the cow may be called the cow-pox: whether it arises from an over-distension of the udder, in consequence of neglect in milking, from the sting of an insect, or from any other cause. But the species which claims particular attention is that which was recommended to the world by Dr



Jenner, in the year 1798, as a substitute for the small-pox. This, which originates from the grease in the horse's heel, is called the genuine cow-pox; all other kinds are spurious. For proof that the vaccine fluid, fraught with such unspeakable benefits to mankind, derives its origin from this humble source, the reader may consult the works of Dr. Jenner; the Medical and Physical Journal; and a treatise on the subject by Dr. Loy, of which an analysis is given in the Annals of Medicine for the year 1801; and Mr. Ring's work on this disease, which contains the whole mass of evidence that has appeared concerning it.

The genuine cow-pox appears, in the form of vesicles, on the teats of the cow. They are of a *blue* color, approaching to livid. These vesicles are elevated at the margin, and depressed at the centre. They are surrounded with inflammation. The fluid they contain is limpid. The animals are indisposed; and the secretion of milk is lessened. Solutions of the sulphates of zinc and copper are a speedy remedy for these pustules; otherwise they degenerate into ulcers, which are extremely troublesome. It must, however, be recollected that much of the obstinacy attending these cases is owing to the friction of the pustules in consequence of milking. It is probable that a solution of the superacetate of lead would be preferable to irritating applications. Similar effects are produced in the hands of the milkers, attended with febrile symptoms, and sometimes with tumors. Other parts, where the cuticle is abraded, or which are naturally destitute of that defence, are also liable to the same affection, provided active matter is applied. It even appears that, in some instances, pustules have been produced by the application of vaccine virus to the sound cuticle. One case of this kind may be found in a letter from Dr. Fowler, of Salisbury, to Dr. Pearson, published in the first work of Dr. Pearson on this subject.

The spurious cow-pox is *white*; another criterion is, that both in the brute animal and in the human subject, when infected with the casual cow-pox, the sores occasioned by the genuine species are more difficult to heal than those which are occasioned by the spurious kind. It is of the utmost importance to distinguish the genuine from the spurious sort, which is also, in some degree, infectious; since a want of such discrimination would cause an idea of security against the small-pox, which might prove delusive. Dr. Jenner has elucidated another point of the first importance relative to the genuine cow-pox itself. It had frequently been observed that, when this disorder prevailed in a farm, some of the persons who contracted it by milking were rendered insusceptible of the small-pox, while others continued liable to that infection. This is owing to the different periods at which the disease was excited in the human subject; one person, who caught the disease while the virus was in an active state, is rendered secure from variolous contagion; while another, who received the infection of the cow-pox when it had undergone a decomposition, is still susceptible of the small-pox. This uncertainty of the prevention, the value of which is beyond all

calculation, is probably the reason why it was not before introduced into practice. It may be doubted whether the public would ever have adopted the practice had not this fallacy been detected by Dr. Jenner.

To him also we are indebted for another discovery of the first importance, namely, that the pustule, excited in the human subject by vaccine matter, yields a fluid of a similar nature with that which was inserted. This experiment, so essential to the general propagation of the practice, and so happy in its result, was never before attempted. It was reserved to crown the labors of Dr. Jenner. A considerable number of instances are on record to prove that farriers and others, who receive infection from the heel of a horse, are either partly or totally deprived of the susceptibility of the small-pox. When Dr. Jenner first published an account of his discoveries, this point was enveloped in some degree of obscurity. He then conceived that the matter of grease was an imperfect preservative against the small-pox. This opinion was founded on the following circumstance:—It had been remarked that farriers either wholly escaped the small-pox, or had that distemper in a milder manner than other people. This, however, is easily reconcilable to reason, if we only suppose that in some cases the infection is communicated when the virus possesses all its prophylactic virtue; and in others when its specific quality is in some measure lost.

This variation in the effects produced by the virus of the horse, inclined Dr. Jenner to believe that it was modified, and underwent some peculiar alteration, in the teats of the cow. He now concludes that it is perfect when it excites the genuine disease in the cow; yet a considerable advantage is derived from its being transferred to the latter animal, the nipples of which furnish a more obvious and a more abundant source of this inestimable fluid than its original element the horse. This theory, that the preservative against variolous contagion is perfect when it issues from the fountain-head, and comes immediately from the hands of Nature, is consonant with reason, and consistent with analogy. Thus one obstacle more to the universal adoption of the practice is removed.

But the chief point which has been controverted respecting vaccine inoculation is the permanency of its effect. Instances have been known where persons have escaped the small-pox for a number of years, and yet have ultimately proved not insusceptible of its infection. When such persons had previously undergone the vaccine disease, their apparent security was erroneously ascribed to that cause; but we have not even a shadow of proof that the cow-pox possesses in the least degree the property of a temporary prophylactic, since it appears not even to retard the eruption of the small-pox where previous infection has been received. By this remark, it is not meant to be asserted that it never supersedes or modifies the small-pox; for we have great reason to believe that such beneficial effects often flow from vaccination; but, where an eruption of the small-pox actually takes place after vaccine inoculation, the two diseases frequently co-exist,

without retarding each other in the smallest degree. It is therefore contrary to all reason and analogy to consider the cow-pox as a mere temporary preservative: it is to be regarded, as we think, as a permanent security against that terrible disease.

A number of cases are recorded by Dr. Jenner, and other authors who have written on this subject, in which persons who have received the cow-pox by casual infection, twenty, thirty, forty, and fifty years before, still continued insusceptible of variolous contagion, in whatever form it was applied. As the cow-pox destroys the susceptibility of the small-pox, so the small-pox destroys that of the cow-pox. To this general rule, however, a few exceptions are said to have occurred. Certain it is that a pustule has now and then been excited by the insertion of vaccine virus in those who have had the small-pox, and that this pustule has been known to yield the genuine virus; but it is not equally certain that the pustule has been perfect in all respects. Possibly it may have been defective in point of size or duration, in respect to its areola, or the limpidity of its contents. That such a pustule has, in some instances, yielded effectual virus, is admitted; but this is no more than what has often happened in cases where persons who have had the small-pox are a second time submitted to that infection in the same form.

The artificial cow-pox in the human subject is much milder than the casual disease; and incomparably milder than the small-pox, even under the form of inoculation. It neither requires medicine nor regimen; it may be practised at any season of the year; and, not being infectious by effluvia, one person may be inoculated without endangering the life of another. This affection produces no pustulous eruptions. When such attend vaccine inoculation, they are owing to some adventitious cause, such as the small-pox, which it is well known may co-exist with the cow-pox. The vaccine vesicle is confined to the parts where matter is inserted; it is, therefore, entirely a local and an inoculated disease. Nevertheless, it is certain that eruptions of other kinds, in some instances, attend vaccine inoculation; such as a nettle-rash, or an eruption resembling a tooth-rash, but rather larger than what is commonly called by that name.

Among other singularities attending the cow-pox, the mildness of the disease, under the form of inoculation, has been urged as an argument against the practice, the cause appearing, to ordinary comprehensions, inadequate to the effect. This, it must be allowed, is the best apology that can be offered for scepticism on that point; but it will weigh but little when put into the scale against actual observation, and incontrovertible fact. The efficacy of the cow-pox, as a safe-guard against the small-pox, rests perhaps on more extensive evidence, and a more solid foundation, than any other axiom in the whole circle of medical science. That the cow-pox is not infectious by effluvia is naturally concluded from its never being communicated from one person to another in the dairies; where the disease is casual, and appears under its worst

form. The same inference may be drawn from its never spreading in a family, when only one person is inoculated at a time. To confirm this proposition more fully, the vaccine pustules have been ruptured, and persons who have never had the disorder have been suffered to inhale the effluvia several times a day, but to no purpose. This is no more than might be expected, in an affection where the pustulous appearance on the surface of the body is nearly local. As to the constitutional indisposition, it is seldom considerable, unless there is a complication of this with some other distemper; and, whenever any unfavorable symptoms appear, they may in general be traced to some other cause. We have indeed great reason to believe that no ill consequence ever arises from the cow-pox itself, unless from ignorance or neglect.

But, notwithstanding the symptoms are mild, they frequently occur at a very early period. A drowsiness, which is one of the most common attendants of the disease, is often remarked by the parents themselves, within forty-eight hours after the matter is inserted. In a majority of cases a slight increase of heat is perceptible, together with an acceleration of the pulse, and other signs of pyrexia; but not in such a degree as to alarm the most timorous mother. Sometimes the patient is restless at nights; and now and then a case is met with in which vomiting occurs; but in many cases no constitutional indisposition can be perceived. Even then, the cow-pox has never failed to prove an effectual preservative against the small-pox, provided the pustule has been perfect. This being the grand criterion of the security of the patient, too minute an attention cannot be paid to its rise, progress, and decline. The best mode of inoculating is by making a very small oblique puncture in the arm, near the insertion of the deltoid muscle, with the point of a lancet charged with fluid matter. In order to render infection more certain, the instrument may be charged again, and wiped upon the puncture.

In places where the patient is likely to be exposed to variolous contagion, it is advisable to inoculate in more places than one; but, unless there is danger of catching the small-pox, it is better not to make more than one puncture in each arm, lest too much inflammation should ensue. The vaccine fluid may be taken for inoculation as soon as a vesicle appears; but, if the vesicle is punctured at a very early period, it is more apt to be injured. When virus is wanting for inoculating a considerable number, it is better to let the pustule remain untouched till about the eighth day, by which time it has in general acquired a reasonable magnitude. After that day, if the pustule has made the usual progress, the matter begins to lose its virtue; but it may in general be used with safety, though with less certainty of producing infection, till the areola begins to be extensive.

The first sign of infection commonly appears on the third day. A small red spot, rather elevated, may be perceived at the place where the puncture was made. Sometimes, however, the mark of infection, having succeeded, is not visible till a much later period. It may be retarded,



or even entirely prevented, by any other disorder, such as dentition, or any complaint attended with fever, or by extreme cold. Another frequent cause of a slow progress in the pustule, or a total failure of success, is debility. Sometimes it is impossible to discover any sign of infection for above a fortnight. In this respect the cow-pox is subject to the same laws, and liable to the same variation, as the small-pox.

When a considerable inflammation appears within two or three days after inoculation, there is reason to suspect that infection has not taken place; and, if suppuration ensues, that suspicion ought in general to stand confirmed. Now and then, however, it happens that, after the spurious pustule, or, more properly speaking, the phlegmon, has run its course, which is within a few days, a vesicle begins to appear, bearing every characteristic of the genuine vaccine disease, and yielding a limpid and efficient virus for future inoculations. In this case the patient is as perfectly secured from all danger of the small-pox as if no festering of the puncture had preceded. The occurrence of such a case, though rare, is worthy to be recorded; because some practitioners have concluded a spurious pustule to be a certain proof of failure. The areola commonly begins to be extensive on the ninth day, and to decline about the eleventh or twelfth. At this period also the pustule begins to dry; the first sign of which is a brown spot in the centre. In proportion as this increases the surrounding efflorescence decreases, till at length nothing remains but a circular scab, of a dark-brown mahogany color, approaching to black. Sometimes it resembles the section of a tamarind stone; and it often retains the depression in the centre, which characterises this disease before exsiccation takes place.

Instances have been known where the vaccine pustule, though regular, and perfect in all other respects, has been totally destitute of areola; at least where neither the medical practitioner, on visiting the patient, nor the attendants, have remarked any appearance of that symptom. In these cases the patient has proved as insusceptible of variolous infection as if the surrounding efflorescence had covered the whole arm. It must, however, be confessed that we have no proof of the non-existence of an areola in these cases. It might have been trivial; it might have been transient; yet it might have been effectual. There is, however, greater reason to believe that the surrounding efflorescence, though usually a concomitant circumstance, is not an essential requisite to the vaccine disease. If by any accident the vesicle is ruptured, suppuration often ensues. In this case more attention than ordinary ought to be paid to the progress, and to all the phenomena of the local affection; both on account of the uncertainty of success in the pustule, as a prophylactic, and the greater probability of tedious ulceration.

If there is room for the least doubt of the sufficiency of the first inoculation, a second ought to be performed without delay. This, if unnecessary, is seldom attended with inconvenience, and never with danger. Either no effect is produced, or a slight festering, which terminates in

a few days. An exception occurs, but rarely, where a spurious, or perhaps even a genuine pustule, takes place in those persons who are known to have had the cow-pox or the small-pox already; but this cannot be the least cause of alarm to any one who knows the benign character of the distemper. Various topical applications, both stimulant and sedative, have been recommended, in order to allay the violence of inflammation. If the operation for the insertion or matter is not unnecessarily severe, nor the pustule irritated by friction, or pressure, or other violence, no such applications are necessary. Nevertheless, if either the anxiety of the professional man, or the importunity of a tender parent, should demand a deviation from this general rule, any of the following remedies may be had recourse to. The pustule may be touched with very diluted sulphuric acid; which should be permitted to remain on the part half a minute, and then be washed off with a sponge dipped in cold water. This has been ignorantly, or artfully, called an escharotic; but any one who tries the application will soon discover that its operation is mild and harmless. To avoid cavil and misrepresentation, it is better to apply a saturnine lotion; compresses, dipped in such a lotion, may be applied at any time when inflammation runs high, and renewed as occasion requires.

If the pustule should chance to be broken, a drop of the liquor plumbi acetatis, undiluted, may be applied as an esiccant; but, if ulceration threatens to become obstinate or extensive, a mild cataplasm is the best resource. In case the ulceration is only superficial, and not attended with immoderate inflammation, a bit of any adhesive plaster, spread on linen, will prove the most convenient dressing, and seldom fails of success. It will, in general, be unnecessary to renew it oftener than every other day. These minute observations no one will despise, unless there be any person so ignorant as not to know that the care of the arm is almost the whole duty of the medical practitioner in vaccine inoculation; and that nothing disgusts the public so much against the practice as a sore arm, and the ill consequences which, from a neglect of that symptom, too often ensue. When fluid virus cannot be procured, it is necessary to be cautious how it is preserved in a dry state. The most improper mode is that of keeping it on a lancet; for the metal quickly rusts, and the vaccine matter becomes decomposed. This method, however, is as likely to succeed as any, when the matter is not to be kept above two or three days. If the virus be taken on glass, care must be taken not to dilute it much; otherwise it will probably fail.

Cotton thread is a very commodious vehicle. If it is intended to be sent to any considerable distance, it ought to be repeatedly dipped in the virus. No particular caution is necessary with regard to the exclusion of air; nevertheless, as it can be done with so little trouble, and is more satisfactory to those who receive the matter, it is better to comply with the practice. On this account it may be enclosed in a glass tube, or in a tobacco-pipe sealed at each end, or between two square bits of glass, which may, if necessary,

be also charged with the matter, and wrapped in gold-beater's skin. Nothing is more destructive to the efficacy of cow-pox matter than heat: on this account it must not be dried near the fire, nor kept in a warm place. The advantage of inserting it in a fluid state is so great that it is to be wished every practitioner would endeavour to keep a constant supply for his own use, by inoculating his patients in succession, at such periods as are most likely to answer that purpose.

**VACCINIUM**, the whortle-berry, or bilberry, in botany, a genus of plants of the class of octandria, and order of monogynia; and arranged in the natural system under the eighteenth order, bicornes. The calyx is superior; the corolla monopetalous; the filaments inserted into the receptacle; the berry quadrilocular and polyspermous. There are fifteen species, the most remarkable of which are, 1. *V. myrtillus*, black whorts, whortle berries, or bilberries, growing in woods and on heaths abundantly. 2. *V. oxycoccus*, cran-berry, moss-berry, or moor-berry, frequent on peat bogs in the Lowlands, but not so common in the Highlands, of Scotland. 3. *V. vitis idæa*, red whortle berries, frequent in dry places, in heaths, woods, and on mountains. The berries have an acid cooling quality, useful to quench the thirst in fevers. 4. *V. uliginosum*, the great bilberry bush, found in low moist grounds, and almost at the summits of the Highland mountains. The leaves are full of veins, smooth and glaucous, especially on the under side; the berries are eatable, but not so much esteemed as the preceding.

**VACUNTÆ**, an ancient people of Mauritania. See MAURITANIANS.

**VACUUM**, *n. s.* Lat. *vacuum*. Space unoccupied by matter: *vacuist*, *vacuistry*, *vacuous*, *adj.* } cuity has also this sense, and is applied metaphorically to inanity of mind or character: a *vacuist* is a philosopher who holds in a vacuum opposed to a plenist: *vacuous*, empty; unfilled.

In filling up *vacuities*, turning out shadows and ceremonies, by explicit prescription of substantial duties, which those shadows had obscurely represent.

Hammond's Fundamentals.

Boundless the deep, because I AM who fill  
Infinitude: nor *vacuous* the space.

Milton's Paradise Lost.

Redeeming still at night these *vacuities* of the day.  
Fell.

Those spaces, which the *vacuists* would have to be empty, because they are manifestly devoid of air, the plenists do not prove replenished with subtle matter.

Boyle.

God, who alone can answer all our longings, and fill every *vacuity* of our soul, should entirely possess our heart.

Rogers.

Hunger is such a state of *vacuity* as to require a fresh supply of aliment.

Arbushnot.

Our enquiries about *vacuum*, or space and atoms, will shew us some good practical lessons.

Watts.

**VACUUM**, in philosophy, denotes a space empty or devoid of all matter or body. It has been a matter of much dispute among philosophers whether there be in nature a perfect vacuum, or space void of all matter; but, if bodies consist of material solid atoms, it is evi-

dent that there must be *vacuities*, or motion would be impossible. See METAPHYSICS. We can even produce something very near a vacuum in the receiver of an air pump, and in the Torricellian tube. See PNEUMATICS. And it is doubtful whether the particles of the densest bodies known be in perfect contact.

**VACUUM BOYLEANUM** is the approach to a real vacuum, to which we can arrive by means of the air-pump.

**VACUUM TORRICELLIAN** is the most complete vacuum which we can make by means of the torricellian tube. See BAROMETER, and PNEUMATICS.

**VADE**, *v. n.* Lat. *vado*. To vanish; pass away.—Spenser. A word useful in poetry, but not received.

Be ever gloried here thy sovereign name,  
That thou mayest smile on all which thou hast made,

Whose frown alone can shake this earthly frame,  
And at whose touch the hills in smok shall vade.

Wotton.

**VADIUM**, a pledge in law, is either *vivum* or *mortuum*.

**VADIUM MORTUUM**, or dead pledge. See MORTGAGE.

**VADIUM VIVUM**, or living pledge, is when a man borrows a sum (suppose £200) of another, and grants him an estate, as of £20 per annum, to hold till the rents and profits shall repay the sum so borrowed. This is an estate conditioned to be void as soon as such sum is raised. And in this case the land or pledge is said to be living: it subsists, and survives the debt; and, immediately on the discharge of that, results back to the borrower.

**VAGABOND**, *adj. & n. s.* Fr. *vagabond*; low Lat. *vagabundus*. Wandering without any settled habitation; wanting a home: the noun substantive corresponding.

Let them pronounce the steep Tarpeian death  
*Vagabond* exile: yet I would not buy  
Their mercy at the price of one fair word.

Shakspeare. Coriolanus.

We call those people wanderers and *vagabonds*, that have no dwelling-place.

Raleigh's History of the World.

Their prayers by envious winds

Blown *vagabond* or frustrate.

Milton.

A *vagabond* debtor may be cited in whatever place or jurisdiction he is found.

Ayliffe's Parergon.

*Vagabond* is a person without a home.

Watts.

**VAGARY**, *n. s.* Lat. *vagus*. A wild freak; a capricious frolick.

They changed their minds,  
Flew off, and into strange *vagaries* fell,

As they would dance.

Milton's Paradise Lost.

**VAGINA**, in anatomy, a canal reaching from the external orifice, or os pudendi, of women, to the uterus.

**VAGINA** properly signifies a sheath or scabbard, and is used in architecture for the part of a terminus, because resembling a sheath, out of which the statue seems to issue.

**VAGOUS**, *adj.* Lat. *vagus*; Fr. *vague*. Wandering; unsettled. Not in use.

Such as were born and begot of a single woman, through a *vagous* lust, were called *Sporii*.

Ayliffe.



VA'GRANT, *adj. & n. s.* Lat. *vagor*; Ital. *vagure*. Wandering; unsettled; vagabond: the noun substantive corresponding.

Do not oppose popular mistakes and surmises, or *vagrant* and fictitious stories.

*More's Divine Dialogues.*

Take good heed what men will think and say;

That beauteous Emma *vagrant* courses took,  
Her father's house and civil life forsook. *Prior.*

You'll not the progress of your atoms stay,  
Nor to collect the *vagrants* find a way. *Blackmore.*

*Ye vagrants* of the sky,

To right or left unheeded take your way. *Pope.*

VAGRANTS, in law. Some of the ancient statutes contain very severe regulations respecting vagrancy. By stat. 22 Hen. VIII., c. 12, a vagrant, after being whipped, was to take an oath to return to the place where he was born, or where he had last dwelt before the punishment, for the space of three years; and there labor as a true man ought to do. By stat. 27 Hen. VIII., c. 25, persons found a second time in a state of vagrancy were not only to be whipped, but to have the upper part of the gristle of the right ear clean cut off; for a third offence, the punishment was death. By 1 Edw. VI., c. 3, a vagabond was to be marked with a hot iron on the breast with V., and adjudged to be a slave for two years to the person who took him. This act was repealed by stats. 3, 4, Edw. VI. c. 16, which restored the provisions of 22 Hen. VIII. c. 13, with some additions. By stats. 14 Eliz. c. 5, 18 Eliz. c. 3, provisions were made for the punishment of vagabonds by whipping, gaoling, boring the ears, and death for a second offence.

Now, under stat. 17 Geo. II. c. 5, vagrants are divided into three classes, viz.: idle and disorderly persons; rogues and vagabonds; and incorrigible rogues; and are thus described and particularised at full length:—They who threaten to run away and leave their wives or children to the parish; or unlawfully return to a parish whence they have been legally removed; or, not having wherewith to maintain themselves, live idle, and refuse to work for the usual wages; and all persons going from door to door, or placing themselves in the streets, &c., to beg in the parishes where they dwell, shall be deemed idle and disorderly persons. All persons going about as patent-gatherers, or gatherers of alms, under pretence of losses by fire, &c., or as collectors for prisons, &c.; all fencers and bearwards; all common players of interludes; and persons, who for hire, gain, or reward, act, represent, or perform, or cause to be acted, &c., any interlude, tragedy, comedy, opera, play, farce, or other entertainment of the stage, or any part therein, not being authorised by law; all minstrels, jugglers; all persons pretending to be gypsies, or wandering in the habit or form of Egyptians, or pretending to have skill in physiognomy, palmistry, or other crafty science, or to tell fortunes, or using any subtle craft to deceive and impose on a person; or playing or betting at any unlawful games or plays; and all persons who run away and leave their wives and children, whereby they become chargeable to any parish; all pedlars not duly licensed; all persons wandering abroad and lodging in ale-

houses, barns, out-houses, or in the open air, not giving a good account of themselves; and all persons wandering abroad and begging, pretending to be soldiers, mariners, or pretending to go to work in harvest, not having proper certificates; and all other persons wandering abroad and begging; and all persons going from door to door, or placing themselves in streets, &c., to beg in the parishes where they dwell, who, being apprehended for the same, shall resist or escape, shall be deemed rogues and vagabonds. Aliend-gatherers offending against the stat. 13 Geo. I. c. 23, being convicted; all persons apprehended as rogues and vagabonds, and escaping, or refusing to go before a justice, or to be examined upon oath before such justice, or refusing to be conveyed by pass; or giving a false account of themselves after warning of the punishment; and all rogues or vagabonds breaking or escaping out of any house of correction; and all persons who, having been punished as rogues and vagabonds, shall again commit any of the said offences; and offenders against this act having children with them (and such children being put out apprentices or servants pursuant to this act), being again found with the same children, shall be deemed incorrigible rogues.

The punishment of idle and disorderly persons is commitment to the house of correction, there to be kept to hard labor, not exceeding a month.

Rogues and vagabonds are to be publicly whipt or sent to the house of correction until the next sessions, or any less time; and, after such whipping or commitment, may be passed to their last legal settlement or place of birth; or, if, under fourteen, and having a father or mother living, to the place of abode of such father and mother. And if committed until the next sessions, and adjudged a rogue or vagabond, the justices may order them to be kept in the house of correction to hard labor, not exceeding six months.

A person adjudged at the sessions a rogue or vagabond, or incorrigible rogue, may be kept in the house of correction to hard labor, such rogue for not more than six months, and such incorrigible rogue not exceeding two years, nor less than six months; and during the confinement either of them may be corrected by whipping, at such times and places as the justices shall think fit, and may then be passed as aforesaid; and if a male, and above the age of twelve years, the justices, before his discharge, may send him to be employed in the king's service, either by sea or land. If, before the expiration of his confinement, he shall escape from the house of correction, or offend again in the like manner, he shall be deemed to be guilty of felony, and transported for any time not exceeding seven years. See 5 East's Rep. 339. If the sessions under this section order a rogue to be whipped, and then sent into his majesty's service, but omit to adjudicate whether the service shall be by sea or by land, the conviction shall be quashed as to that part, though valid as to the former. 5 East's Rep. 339. Any person may apprehend and carry before a justice persons

going about from door to door, or placing themselves in streets, highways, or passages, to beg alms in the parishes where they dwell.

By stat. 59 Geo. III. c. 12, §§ 33, 34, poor persons born in Scotland, Ireland, Man, Jersey, or Guernsey, may be removed, although they have not committed any act of vagrancy; and, although they may have committed such act, without being whipped or imprisoned under 32 Geo. III. c. 45. It is suggested as an important question, whether a single-woman removed under 35 Geo. III. c. 101, as actually chargeable on account of being with child, is punishable as a vagrant for returning after her delivery? And an opinion is given by a very competent judge that she is not. See note to stat. 17 Geo. II. c. 5, Evans's Collection of Statutes, Part VI. class 38, nu. 2.

**VAGUE**, *adj.* Fr. *vague*; Lat. *vagus*. Wandering; vagrant; vagabond.

Gray encouraged his men to set upon the *vague* villains, good neither to live peaceably, nor to fight.

Hayward.

The perception of being, or not being, belongs no more to these *vague* ideas, signified by the terms whatsoever and thing, than it does to any other ideas.

Locke.

**VAIL**, *n. s.*, *v. a.*, & *v. n.* Fr. *voile*. Frequently written veil, from Lat. *velum*, and the verb veil, from the verb *velo*. A curtain; a cover thrown over any thing to be concealed: hence a part of female dress: to *vail* is to cover; conceal; let fall; sink in fear; lower in token of respect: as a verb neuter to yield; give place.

While they supposed to lie hid in their secret sins, they were scattered under a dark *vail* of forgetfulness.

Wisdom.

That furious Scot

'Gan *vail* his stomach, and did grace the shame Of those that turned their backs.

Shakspeare.

The virgin 'gan her beavoir *vail*.

And thanked him first, and thus began her tale.

Fairfax.

They stiffly refused to *vail* their bonnets, which is reckoned intolerable contempt by seafarers.

Carew.

They had not the ceremony of *veiling* the bonnet in salutations; for, in medals, they still have it on their heads.

Addison.

**VAILLANT** (John Foy), a physician and great medalist, was born at Beauvais in 1632. Through the minister Colbert he travelled into Italy, Greece, Egypt, and Persia, to collect medals for the royal cabinet; and returned with so many as made the king's cabinet superior to any in Europe. Once, when in danger of being taken by an Algerine pirate, he hid some valuable coins in his stomach! From this curious cabinet he did not recover them without much difficulty. When Louis XIV. gave a new form to the academy of inscriptions, in 1701, Mr. Vaillant was first made associate, and then pensionary. He wrote several works relating to ancient coins, and died in 1706.

**VAIN**, *adj.*

**VAIN**'LY, *adv.*

**VAIN**'NESS, *n. s.*

**VAINGLO**'RIOUS, *adj.*

**VAINGLO**RY, *n. s.*

*verb* and noun substantive corresponding: vain-

Fr. *vain*; Lat. *vanus*. Fruitless; in-

fectual; empty; puffed

up with praise or self-

conceit; false: the ad-

glorious is self-conceited or puffed up; unreal glory: the noun substantive corresponding.

*Vain-glorious* man, when fluttering wind does blow,

In his light wings is lifted up to sky Spenser.

Let no man speak again

To alter this; for counsel is but *vain*. Shakspeare.

I hate ingratitude more in a man,

Than lying, *vainness*, babbling. Id.

Our cannon's malice *vainly* shall be spent

Against the invulnerable clouds of heaven. Id.

Expose every blast of *vain-glory*, every idle thought, to be chastened by the rod of spiritual discipline.

Taylor.

Strength to glory aspires

*Vain-glorious*, and through infamy seeks fame.

Milton.

Both all things *vain*, and all who in *vain* things

Build their fond hopes of glory, or lasting fame,

Or happiness. Id. Paradise Lost.

Nor *vainly* hope to be invulnerable.

Milton.

This his arrogant and *vain-glorious* expression witherseth.

Hale.

*Vain* is the force of man,

To crush the pillars which the pile sustain.

Dryden.

Strong Halys stands in *vain*; weak Phlegys flies.

Id.

No folly like *vain-glory*; nor any thing more ridiculous than for a *vain* man to be still boasting of himself.

L'Estrange.

The philosophers of old did in *vain* enquire, whether summum bonum consisted in riches, bodily delights, virtue, or contemplation.

Locke.

Load some *vain* church with old theatrick state.

Pope.

A monarch's sword when mad *vain-glory* draws, Not Waller's wreath can hide the nation's scar.

Id.

To be *vain* is rather a mark of humility than pride.

*Vain* men delight in telling what honours have been done them, what great company they have kept, and the like; by which they plainly confess that these honours were more than their due, and such as their friends would not believe, if they had not been told: whereas a man truly proud thinks the honours below his merit, and scorns to boast.

Swift.

Humility teaches us to think neither *vainly* nor vauntingly of ourselves.

Delany.

**VAL DE PENNAS**, a town in the province of La Mancha, Spain, contains about 8000 inhabitants, who manufacture woollen stuffs and soap; but their principal employment is agriculture. In the neighbourhood is produced excellent wine; and very good saffron: the bread made here is also of particular excellence. Ninety miles S. S. E. of Toledo, and 113 south of Madrid.

**VAILLANT** (Francis le), a modern traveller, born at Parimaribo in Dutch Guiana (S. A.) in 1753. His father, a merchant from Metz, exercised the functions of consul. In 1777 circumstances drew the son to Paris, and, having examined the cabinets of natural history, he conceived an irresistible desire to visit the countries whence the curiosities proceeded. Africa became the first object of his attention; and he arrived in March 1781 at the Cape of Good Hope. Between that period and July 1784 he made repeated excursions into Caffria, and returning to Europe in January 1785 employed himself in drawing up an account of his travels. Being imprisoned on suspicion, in 1793, he owed his life to the fall of Robespierre. He was not,



however, a politician : possessed of a considerable estate at La Noue near Sezanne; he passed a great deal of his time in hunting, and devoted the remainder to the composition of his works. He died in his retreat, November 22d, 1824, having published *Voyage dans l'Intérieur de l'Afrique par le Cap de Bonne Espérance*, Paris, 1700, 2 vols. 8vo.; and *Second Voyage dans l'Intérieur de l'Afrique*, 1796, 3 vols. 8vo., both which have been translated into English and several other languages. He was also the author of *Histoire Naturelle des Oiseaux d'Afrique*, 1796—1812, 6 vols. folio, two more volumes to complete the work being left in MS.; *Histoire Naturelle des Perroquets*, 1801—5, 2 vols. folio; *Histoire Naturelle des Oiseaux de Paradis*, 1801—6, folio; *Histoire Naturelle des Cotingas et des Todiers*, 1804, folio; *Histoire Naturelle des Calaos*, 1804, folio. The figures which accompany his works are considered accurate.

**VALAIS**, a canton in the south of Switzerland, bounded by Uri, Bern, and Friburg, and in another direction by Savoy and the lake of Geneva. It lies in the direction of north-east and south-west, and is of an oblong form, its length being about 100 miles, and its medium breadth from twenty-five to thirty. Its extent is computed at 1850 square miles, but its scattered population does not exceed 14,000. It is watered by the Rhone, and bordered on the north, as on the south, by the loftiest mountains in Europe. No country exhibits a greater diversity in its productions; harvest in the valley is finished by the end of May, while in other districts its activity is greatest in September and October. The scenery exhibits an equally striking contrast.

The religion of the Valais is Catholic; the language of the mountainous parts German; and that of the low ground a dialect of French. The manners are those of a simple, ill educated, superstitious people; strangers to activity and to the arts. The rearing of cattle is the only employment of consequence. This petty community was formerly an independent republic in alliance with Switzerland; it formed, under Buonaparte, a department of the French empire; and was declared one of the cantons of Switzerland by the congress of Vienna. The capital is the town of Sion.

**VALANCE**, *n. s. & v. a.* } From Valencia,  
**VAL'ANCY**, *adj.* } whence the use of  
 them came.—Skinner. The fringes or drapery hanging round the tester and stead of a bed : to decorate with drapery : vallancy is flowing like drapery.

Old friend, thy face is *valanced* since I saw thee last; comest thou to hear me? *Shakspeare.*

My house

Is richly furnished with plate and gold;

*Valance* of Venice, gold in needlework. *Id.*

But you, loud Sirs, who through your curls look big,

Critick in plume, and white *vallancy* wig. *Dryden.*

Thrust the *valance* of the bed, that it may be full in sight. *Swift.*

**VALANTIA**, in botany, cross-wort, a genus of plants in the order monocæcia, of the class polygamia, and in the natural system arranged under the forty-first order, the asperifoliæ. There is

scarcely any calyx; the corolla is monopetalous, flat, four-parted, the stamina four, with small antheræ; the hermaphrodite flowers have a pistillum with a large germen, a bifid style, the length of the calyx, and one seed; the pistilla of the male flowers are hardly discernible. There are eight species, one of which, viz. *V. cruciata*, is a native of Britain; the stalks are square, the whole plant hairy, the leaves oval and verticillate, four in a whirl; the flowers are yellow, and grow on short peduncles out of the axæ of the leaves. The root, like those of the galiums, to which it is related, will dye red. It is astringent, and was once used as a vulnerary.

**VALCKENAER** (Louis Caspar) a celebrated critic, was born in 1715, at Leeuwarden, in Friseland. He studied at Franeker and at Leyden, after which he became co-rector of the gymnasium of Campen. In 1741 he was called to the chair of Greek literature at Franeker, to which in 1775 was joined that of Greek antiquities. In 1766 he removed to Leyden, as professor of Greek antiquities and history. He arrived at great reputation. Among his principal publications may be mentioned Euripidis Phœnissæ, with collections of MSS. scholia, critical observations, &c., Franeker, 1755, 4to; Euripidis Hippolytus, et Diatribe in deperditis Euripidis Tragediis, Leyden, 1768, 4to.; Theocriti X Idyllia, cum Notis; ejusd. Adonizæusæ, uberioribus Adnotationibus instructæ, 1773, 8vo.; Callimachi Elegiarum Fragmenta, cum Elegiâ, Catulli Callimacheâ, 1799, 8vo.; Observaciones Academicæ, quibus Via munitur ad origines Græcas investigandas, Lexicorumque Defectus resarciendos, Utrecht, 1790, 8vo., edited by Everard Scheidius; Two Discourses of St. John Chrysostom; and Specimen Adnotationum criticarum in loca quædam Novi Fœderis, Leyden, 1782, 8vo. In 1809 were printed at Leipsic, L. C. Valckenarii Opuscula Philologica, Critica et Oratoria, nunc primum conjunctum edita. His death took place March 15th, 1785.

**VALCKENAER** (John), son of the preceding, studied jurisprudence, and became professor of that science at Franeker. In 1787, having joined the patriotic party against the house of Orange, he was made professor of law at Utrecht, in the room of Tydeman; but on the restoration of the stadtholder was obliged to take refuge in France. He returned at the invasion of Holland by the French in 1795, when he published a periodical paper, entitled *The Advocate of Batavian Liberty*. He was then appointed to the chair of jurisprudence at Leyden, on which occasion he delivered a discourse *De Officio Civis Batavi in Republicâ turbatâ*. After being employed on a diplomatic mission to Prussia, he was chosen a member of the legislative body of the republic, and subsequently sent by the Batavian directory ambassador to Spain. He returned and went a second time, in 1799, as minister plenipotentiary. Coming home in 1801 he resumed his place in the academical senate, and became a member of the administration of Rhinland. He was also a member of the Dutch Institute. In 1810 Valckenaer was sent to Paris to endeavour to prevent the incorporation of Holland with the French empire; and, returning

unsuccessful, afterwards took no part in public affairs. He died January 19th, 1820, leaving several learned dissertations on juridical topics.

**VALDIVIA**, a province of Chili, situated in the midst of the country occupied by the Araucanians, which comprehends a tract of about seventy leagues in length. It lies upon the sea-coast, on both sides of the river Valdivia, and on the south is bounded by the country of the Guinchi or Cunchi, who are in possession of its southern part. It is about twelve leagues long and six broad, and abounds with valuable timber, and very fine gold dust.

**VALDIVIA**, the capital of the above province, is a celebrated city and fortress, situated on the southern shore of the river of its name, at three leagues distance from the sea. This city was founded in 1551 by Pedro de Valdivia, who gave it his name, and obtained immense sums of gold from the vicinity. Its wealth allured many thither, and it became, even at its commencement, one of the most populous cities in the kingdom. In 1590 it was surprised at night by the celebrated Pallimachu with 4000 men, who killed the greater part of the garrison, consisting of 800 soldiers, and, having burned the city, carried off 1,000,000 in gold, and a great number of prisoners. The Spaniards rebuilt it, and fortified it so strongly that it resisted all the attempts of the Araucanians. It was, however, taken in the year 1640 by the Dutch. The Spaniards, who had fitted out a considerable fleet to retake it, finding it on their arrival abandoned, repaired and fortified it again, adding four strong castles or forts upon both sides of the river towards the sea, and another on the north. The harbour is situated in a bay formed by the river, and is the safest, the strongest from its natural position, and the most capacious of any of the ports in the South Sea. The island of Manzera, situated just in the mouth, forms two passages bordered by steep mountains, and strongly fortified. The town contains a college built by the Jesuits, several convents, a parochial church, and a royal hospital. 183 miles south of Concepcion. Long. 80° 5' W., lat. 40° 5' S.

**VALDIVIA**, a river of Chili, has its rise eastward in the Andes, and runs into the Pacific. The territory abounds in all kinds of cattle and birds, and timber; and not less in mines of gold, of as rich quality as that of Carabaya in Peru.

**VALE**, *n. s.* Fr. *val*; Lat. *vallis*. A low ground; a valley; a place between two hills: a poetical word.

In *Ida vale*: who knows not *Ida vale*?

An hundred shepherds woned.

*Spenser.*

Met in the *vale* of Arde. *Shakspeare. Henry VIII.*

Anchises, in a flowery *vale*,

Reviewed his mustered race, and took the tale.

*Dryden.*

In those fair *vales* by nature formed to please,

Where Guadalquivir serpentine with ease. *Harte.*

**VALE**, *n. s.* Either from *avail*, or Lat. *vale*, farewell. Money presented to servants.

His revenue, besides *vales*, amounted to thirty pounds.

*Swift.*

**VALEDICTION**, *n. s.* Lat. *valledico*. A farewell.

A *vallediction* forbidding to weep.

*Donne.*

**VALENCE**, an old town of France, the capital of the department of the Drome, situated on the declivity of a small hill, on the left bank of the Rhone. The cathedral is a building of considerable antiquity, but neither it nor the episcopal palace has any claim to attention in point of architecture. The case is otherwise with the Gothic façade of an old castle at this place, which is said to be one of the finest specimens of that style in France. In the citadel pope Pius VI., after being driven from Rome by the French government, died in 1799. Valence possessed little remarkable in antiquities, except some inscriptions and a military column. Like most other provincial towns of France, it has a public walk and a library. Its population amounts to 8000; the manufactures comprise silk, cotton, and leather, on a small scale. Olives grow in the neighbourhood, and the town has a number of oil mills. Valence was occupied by the royalists in April 1815, after the return of Buonaparte from Elba, but soon relinquished by them. Forty-two miles south-west of Grenoble, and fifty-five south by east of Lyons.

**VALENCIA**, a large eastern province of Spain, extending in an oblong form from north to south, with the sea on one side and the Castilian provinces on the other. It lies between lat. 37° 52' and 40° 50' N., and is in length no less than 250 miles, but its breadth seldom exceeds fifty. Its area is about 8000 square miles: its population is stated by Antillon and others at nearly 1,200,000.

It contains a number of mountains, has several plains, and fertile valleys. The plain adjacent to the capital is above eighty miles in length. This province is watered by the Xucar, the Segura, and the Guadalaviar; the Murviedro, the Palencia, the Mejares, and others of less size, all flowing from the mountains of the interior to the Mediterranean. The temperature is mild the thermometer in winter varying from 40° to 60°, in summer from 70° to 80°.

In minerals, with the exception of iron, this province is not rich. In vegetable products the case is otherwise, and more justice is done to the fertility of the soil by the industry of the peasantry than in other parts of Spain; but irrigation is here, as in the south of France, an indispensable requisite. The white wine of Alicante is in high repute. Flax, hemp, and rice, are likewise reared. In manufactures the Valencians have made very little progress, being content to import their linens, hardware, and finer woollens, groceries, and salt fish.

The language in the towns is that of the rest of Spain, but the peasantry have a dialect similar to the Provençal spoken in Catalonia.

Early invaded by the Carthaginians, this province was soon after conquered by the Romans, and at a subsequent date by the Goths and Moors, the latter establishing a kingdom of *Valescia* in 713, and retaining it under several vicissitudes of fortune, until 1238, when it was definitely united to that of Arragon. It afterwards formed a component part of the Spanish monarchy, but continued to preserve its representative body and its privileges, till the early part of the eighteenth century.



**VALENCIA**, a large city in the east of Spain, the capital of the above province, is situated only two miles from the sea, in an open plain, on the banks of the Guadalaviar. The vicinity of Valencia has been called *La Huerta*, or the Garden, from the richness of its soil, and the variety of its fruits.

Valencia, once a place of strength, is still surrounded by a rampart, and made a considerable resistance to the French in 1811. Its citadel is small and ill fortified, and does not even command the town. The population is about 80,000 in the city, and between 15,000 and 18,000 in the villages and environs. It has several of the narrow lanes that are characteristic of many towns in the south of Europe: the want of chimneys, another feature of a warm country, is found in many of the buildings. Of the different public walks, the chief is that which extends along the banks of the river. Valencia is the see of an archbishop, and contains a number of churches and convents, with several hospitals. Few towns contain so large a number of public buildings, so little remarkable for elegance. The ancient palace, called *El Real*, is now the residence of the captain-general: the cathedral a large but irregular Gothic building. The other remarkable structures are a Moorish mosque; a church built for Christian worship in the time of the Goths; and the college of *Pio Quinto*, the convent of the Carmelites, the lodge or place of meeting for the commercial court, the custom-house, the college of the patriarch, &c., all modern buildings. Among the antiquities are some Roman inscriptions, with fragments of statues.

The university was founded in 1470 on an extensive scale, but the course of study is obsolete. They have here an academy of painting, and reckon several eminent artists among their number; here are also two public libraries. Of manufactures, the only extensive one is of silk; but there are, on a small scale, fabrics of leather, woollens, cordage, and lace. The maritime trade of the place is carried on by lighters, which load and unload vessels at the village of *Grao*. As a resort for invalids from the north of Europe, Valencia has a claim to rank with Lisbon, Nice, Pisa, and other well frequented towns.

Valencia was probably the *Valentia Edetanorum* of the Romans. On the invasion of the Goths, it fell, with the rest of the peninsula, into their hands, and continued so until 715, when it was occupied by the Moors. From these invaders it was taken by the *Cid* in 1094, and given to that warrior to govern as a dependency of the king of Castile. It devolved on his death to his widow, a heroine, who sustained in it a long siege against the Moors in the year 1100. It was occupied by the Moors until 1238, when it was finally retaken by the king of Arragon. In a much later contest, Valencia declared against the French, and baffled the first attempts made on it by marshal Moncey; but in the end of 1811 it was attacked by Suchet, and, after a vigorous siege and bombardment, it surrendered in January 1812. 170 miles E. S. E. of Madrid.

**VALENCIA**, a city of South America, in the

*Caraccás*, and province of Venezuela, situated half a league west of the lake of the same name, in a beautiful plain, where the air is pure and the soil fertile. The houses are in general low and irregular, though some of the streets are broad and well built. The parish church, and a handsome square in which it stands, form the principal ornaments. Population 8000.

**VALENCIA**, a beautiful lake of the Caraccas, of South America, and province of Venezuela, which stretches thirteen leagues and a half from E. N. E. to W. S. W., and its greatest breadth is four. It lies at the distance of one league from Valencia, and is situated in a valley surrounded with mountains, excepting on the west. The waters of twenty rivers are discharged into it without any visible outlet. It is the more difficult to account for its having no visible passage for discharge, as it receives rivers on all sides, which proves it to be a perfect basin. But this lake has been diminishing for twenty years.

**VALENCIENNES**, a fortified town of French Flanders, on the Scheldt, which becomes here navigable. The form of the town is circular; the streets narrow and crooked, and its houses in general ill built. There are, however, several objects deserving of attention, as the church of *Notre Dame*, the public square, town hall, and artillery house: the manufactures of lace, &c. The population is about 17,000. Twenty-seven miles south-east of Lisle.

**VALENS**, an Arabian philosopher, founder of a sect of heretics in the second century, called *Valésians*.

**VALENS** (Flavius), emperor of the east, a great patron of the Arians; killed by the Goths A. D. 379. See **CONSTANTINOPLE**, and **ROME**.

**VALENTINE**, *n. s.* A sweetheart chosen on St. Valentine's day.

Now all nature seemed in love,  
And birds had drawn their *valentines*. *Wotton.*

**VALENTINE**, the founder of the sect of *Valentinians*, was born in Egypt, and educated in Alexandria; but, being disappointed of a bishopric, he set up his heresy, which resembles that of the *Gnostics*. He died in A. D. 160.

**VALENTINIAN I.**, emperor of the west, a renowned warrior, but a tyrant over his subjects. See **ROME**.

**VALENTINIAN II.**, emperor of the west, a prince celebrated for his virtues, and above all for his moderation; yet a conspiracy was formed against him by *Arbogastes*, the commander-in-chief of his armies; and he was strangled in the year 392. See **CONSTANTINOPLE**, and **ROME**.

**VALENTINIAN III.**, the son of *Constantius* by *Pulcheria*, daughter of *Arcadius*; succeeded A. D. 423, in his sixth year, and prospered while his mother *Pulcheria* governed. But became a tyrant afterwards, and was murdered A. D. 454.

**VALENTINIANS**, in church history, a sect of Christian heretics, who sprung up in the second century, and were so called from their leader *Valentinus*. The *Valentinians* were only a branch of the *Gnostics*, who realised or personified the Platonic ideas concerning the Deity, whom they called *Pleroma* or *Plenitude*. Their system was this: the first principle is *Bythos*, i. e.

Depth, which remained many ages unknown, having with it Ennoe or Thought, and Sige or Silence; from these sprung the Nous or Intelligence, which is the only son, equal to and alone capable of comprehending the Bythos; the sister of Nous they called Aletheia or Truth; and these constituted the first quaternity of æons, which were the source and original of all the rest; for Nous and Aletheia produced the World and Life; and from these two proceeded Man and the Church. But, besides these eight principal æons, there were twenty-two more; the last of which, called Sophia, being desirous to arrive at the knowledge of Bythos, gave herself a great deal of uneasiness, which created in her Anger and Fear, of which was born Matter. But the Horos or Bounder stopped her, preserved her in the Pleroma, and restored her to Perfection. Sophia then produced the Christ and the Holy Spirit, which brought the æons to their last perfection, and made every one of them contribute their utmost to form the Saviour. Her Enthymese or Thought, dwelling near the Pleroma, perfected by the Christ, produced every thing that is in the world by its divers passions. The Christ sent into it the Saviour, accompanied with angels, who delivered it from its passions, without annihilating it; thence was formed corporeal matter.

VALENTINUS. See VALENTINE.

VALERIAN, or VALERIANUS (Publius Licinius), emperor of Rome, was taken captive, and cruelly treated by Sapor I. king of Persia. See ROME.

VALERIAN, VALERIANA, in botany, a genus of plants belonging to the class triandria, and order monogynia; and in the natural system arranged under the forty-eighth order, aggregatæ. There is hardly any calyx; the corolla is monopetalous, gibbous at the base, situated above the germen; there is only one seed. There are twenty-one species, only four of which are natives of Britain; viz. 1. *V. dicæcia*, the diceious valerian. 2. *V. locusta*, the locust valerian. 3. *V. officinalis*, the officinal valerian, alone is useful. The root of this plant is perennial; the stalk is upright, smooth, channelled, round, branched, and rises from two to four feet in height; the leaves on the stem are placed in pairs upon short broad sheaths; they are composed of several lance-shaped, partially dentated, veined, smooth pinne, with an odd one at the end, which is the largest: the floral leaves are spear-shaped, and pointed; the flowers are small, of a white or purplish color, and terminate the stem on branches in large bunches. It flowers in June, and commonly grows about hedges and woods. It is supposed to be the  $\rho\mu$  of Dioscorides and Galen, by whom it is mentioned as an aromatic and diuretic. It is said by several authors to be efficacious in epilepsy. Bergius states its virtues to be antispasmodic, diaphoretic, emmenagogue, diuretic, anthelmintic. The root in substance is most effectual, and is usually given in powder from a scruple to a drachm; its unpleasant flavor may be concealed by a small addition of mace. A tincture of valerian in proof spirit and in volatile spirit are ordered in the London pharmacopœia. Cats are very fond of

the smell of this root, and seem to be intoxicated by it. 4. *V. rubra*, the red valerian.

VALERIANUS. See VALERIAN.

VALERIUS MAXIMUS, a Latin historian, sprung from the families of the Valerii and Fabii, whereby he united the names of Valerius and Maximus. He studied polite literature, and afterwards followed Sextus Pompey to the wars. At his return he composed an account of the actions and remarkable sayings of the Romans and other great men; and dedicated that work to the emperor Tiberius. Many of the learned think that this is the same that is now extant, and bears the name of Valerius Maximus; but others maintain that what we have now is only an abridgment of the work written by this celebrated historian, and that this abridgment was made by one Nepotian of Africa.

VALERIUS PUBLICOLA, a celebrated Roman, named Poplicola or Publicola, from his popular acts. See ROME.

VALESIANS, a sect of heretics in the second century, founded by Valens, who were all voluntary eunuchs, and rejected the law and the prophets. They were condemned by the council of Achaia, A. D. 240.

VALESIUS (Henricus), or Henry de Valois, a learned critic, born at Paris in 1603. He was bred to the law, but dropt it, and became historiographer to the king, who gave him a pension, as did also the French clergy, for publishing an edition of the ancient church historians. This work was published at Amsterdam in 3 vols. folio, and at Cambridge in 1689. He died blind, in 1726.

VALESIUS (Adrianus), brother to Henry, was also historiographer royal, and published a work entitled *Gesta Francorum*, in 3 vols. folio. He died in 1692.

VALET, *n. s.* French *valet*. A waiting servant.

Giving cast clothes to be worn by *valets* has a very ill effect upon little minds. *Addison.*

VALETTA, LA, the capital of Malta, stands on the east side of the island, in long.  $14^{\circ} 30' 45''$  E., lat.  $35^{\circ} 53' 4''$  N. It consists of five parts, which are distinguished by particular names, and are often considered as separate towns; 1st. Citta Nuova, or La Valetta properly so called, built in 1566, and named after the celebrated grand master La Valetta, who commanded the long siege against the Turks the year before. This quarter, though the last built, soon exceeded all the others in size, and gave name to the whole. It is situated on the side of a hill which runs out into the sea, forming a peninsula; and, besides its own fortifications, is defended by the castles of St. Elmo, Ricazoli, and Floriani. 2d. Citta Vittoriosa, situated on a small tongue of land between two harbours called Marza and Marza Murzet, with a fort at the extremity, which defends the entrance into both. 3d. Senylea, or the isle of St. Michael, is also situated on a peninsula, and is separated from Citta Vittoriosa by a canal called Porto delle Galere. 4th, Barmola, a small place of about 700 houses, situated in front of Senylea, and surrounded by, 5th, Cottonera, which forms a kind of suburb to it. This last contains the



castle of Santa Margaretha. Of these, Citta Nuova, Barmola, and Cottonera, contain in all about 23,000 inhabitants; Citta Vittoriosa about 4000, and Senylea between 4000 and 5000.

Malta abounds in churches; and its capital contains no fewer than twenty, exclusive of the cathedral. The other public buildings are the residence of the grand master, now occupied by the governor of the island; the house in which the knights of the seven different nations composing the order of Malta had their respective halls of meeting; next to these come the town-house, the Castellanea, where the courts of justice are held, the arsenal, and a building situated in Citta Vittoriosa, formerly occupied by the Inquisition. The Jesuits' college, formerly taught by that order, is still a seminary, and serves for the education of Catholic clergy; but part of the building is converted to very different purposes; an exchange and small theatre. La Valetta contains two libraries; that of the knights, an old collection, comprising 40,000 volumes, chiefly of Greek, Latin, French, and Italian works; the other a subscription library for later publications, established by the English in Malta, and as yet on a very limited scale.

The hospital of St. John formerly received between 400 and 500 patients, without distinction of religion or nation; and it was a fact, unexampled in any institution of the kind, that every article of food was served on silver. The French, when pressed in 1800, by the hardships of blockade, seized on these, and the building was afterwards given by the British government to the medical department of the civil staff. It now forms a medical dépôt for the British garrisons in Sicily and the Ionian isles. La Valetta contains also three hospitals, one for foundlings, another for orphans, and a third called the Madalena.

On the south side of Citta Nuova is one of the finest bays in the world. The entrance is hardly a quarter of a mile wide, and is commanded on each side by very strong batteries. It is also fronted by a quadruple battery, the tiers of which rise one above the other, the lowest being on a level with the water. In the centre is a small island, on which are a lazaretto and a castle. The trade of La Valetta is considerable, partly as an entrepôt for intercourse with the Barbary ports, partly as an intermediate station for the Ionian isles and the Levant. Since 1817 it has been, like Gibraltar, entitled to carry on mercantile intercourse with the East Indies.

VALETTE (Peter de), the brave grand master of Malta, who defended it against the whole power of the Turks for four months.

VALETUDINARIAN, *adj.* & } Fr. *valetu-*  
VALETUDINARY, *adj.* [n. s. } *dineire*; Latin *valetudo*. Weakly; sickly; infirm of health. This both adjectives signify, and the noun substantive corresponds.

Physic, by purging noxious humours, prevents sickness in the healthy, or recourse thereof in the *valetudinary*. *Brownie.*

Some patients have been liable to this symptom, and reduced by it to a *valetudinary* and very unequal state of health. *Blackmore.*

Shifting from the warmer vallies to the colder hills,

or from the hills to the vales, is a great benefit to the *valetudinary*, feeble part of mankind.

*Derham.*

VALHALLA (scandin, i. e. the hall of those who died by violence), in the mythology of the ancient Saxons, Scandinavians, Danes, Swedes, &c., the paradise of Odin, where, after death, the souls of warriors were believed to be feasted by Odin, seated on a throne, and served by the Valkyriæ, &c.

VAL'ANT, *adj.* } Fr. *vaillant*. Stout;  
VAL'ANTLY, *adv.* } personally puissant;  
VAL'ANTNESS, *n. s.* } brave; applied both to  
VAL'ANCE. } persons and actions:  
the adverb and noun substantives corresponding.

Only be thou *valiant* for me, and fight the Lord's battles. 1 Samuel, xviii. 17.

With stiff force he shook his mortal lance,  
To let him weet his doughty *valiance*. *Spenser.*

Achimetes, having won the top of the walls, by the *valiantness* of the defendants was forced to retire. *Knolles.*

It was the duty of a good soldier *valiantly* to withstand his enemies, and not to be troubled with any evil hap. *Id.*

Thy *valiantness* was mine; thou suck'dst it from me. *Shakespeare.*

Hale, a very *valiant* fencer, undertook to teach that science in a book, and was laughed at. *Walton.*

The church of Antioch might meet at that time to celebrate the memory of such a *valiant* combat and martyr of Christ. *Nelson.*

VAL'ID, *adj.* } French *valide*; Latin *va-*  
VALID'ITY, *n. s.* } *lidus*. Strong; powerful;  
efficacious; prevalent: the noun substantive corresponding, and also used for value by Shakespeare.

To thee and thine  
Remain this ample third of our fair kingdom;  
No less in space, *validity*, and pleasure,  
Than that conferred on Goneril. *Shakespeare.*

A difference in their sentiments, as to particular questions, is no *valid* argument against the general truth believed by them, but rather a clearer and more solid proof of it. *Stephens.*

You are persuaded of the *validity* of that famous verse—

'Tis expectation makes a blessing dear. *Pope.*

VALKI, a considerable town of European Russia, situated on the river Mscha, in the southern province or government called Slobodsk Ukraine. It is the chief place of a circle, has five churches, and about 9300 inhabitants. Twenty-seven miles west by south of Charkov.

VALLA (George), M. D., born at Placentia, was professor of belles lettres at Venice, where he died in 1460. He wrote *De Expetendis et Fugiendis rebus*, 2 vols. folio.

VALLA (Lawrence), a learned Italian, born at Placentia in 1415. He retrenched the Latin language from its Gothic barbarisms. He was apprehended and condemned to be burnt for heresy, but was saved by Alphonsus king of Naples; after which pope Nicholas V. called him to Rome, and gave him a pension. He died there in 1465. His works are, 1. On the Elegance of the Latin Language, folio; and at Cambridge, 8vo. 2. Life of Ferdinand V., king of Arragon,

4to. 3. Notes on the New Testament. 4. Treatise on Falsehood and Truth. 5. Fables. And, 6. Translations of Thucydides, Herodotus, and Homer's Iliad.

VALLADOLID, an inland province of Spain, forming part of the kingdom of Leon, and lying between 41° 10', and 42° 40' of N. lat. It consists of several scattered tracts, the two largest of which lie in the west and south-east of Leon. The area of the whole is 3400 square miles; the population about 190,000. This province lies in general high, and is sandy and barren; yet there is no want of water, it being traversed by the Duero, which is joined by the Pisuerga, the Esla, the Arlançon, and other rivers. The climate is cold, moist, and uncomfortable. It is divided into twenty-two districts.

VALLADOLID, an ancient city in the interior of Spain, in Leon, situated on the banks of the Esgueva, which divides it into two, and of the larger stream of the Pisuerga. The former flows from the east, the latter from the north. Philip II. was a native of Valladolid, and made it the occasional residence of his court. The streets are dirty, and many of the houses in decay: there are, however, two squares, one of which, the Plaza Mayor, contains some good buildings. The cathedral has never been finished. The monastery of San Benito is a handsome building; and the church of St. Paul contains some good sculptures. The town has six gates, one large bridge, and a number of small ones; several churches and hospitals. Its population does not amount to 20,000. 100 miles N. N. W. of Madrid.

VALLADOLID, one of the twelve intendancies into which Mexico is divided. At the period of the Spanish conquest, this intendancy made a part of the kingdom of Mechoacan, which extended from the Rio de Zacatula to the Port de la Navidad, and from the mountains of Xala and Colima to the river of Lerma and the lake of Chapala. The capital of Mechoacan, which, like the republics of Tlaxcallan, Huexocingo, and Cholollan, was always independent of the Mexican empire, was Tzintzontzan, a town situated on the banks of a very romantic lake. The intendancy of Valladolid is bounded on the north by the Rio de Lerma, which, farther east, takes the name of the Rio Grande de Santiago. On the east and north-east it joins the intendancy of Mexico, on the north the intendancy of Guanaxuato, and on the west that of Guadalajara.

VALLADOLID, or Mechoacan, an episcopal city of Mexico, capital of the intendancy of Valladolid. It is situated on a river well stored with fish, near the west side of a lake, about 120 miles west of Mexico. It is a large place, and enjoys a delicious climate. It contains 18,000 inhabitants.

VALLE (Peter Del La), a famous traveller, born at Rome in 1586. He travelled into Turkey, Egypt, Syria, Persia, and India; and on his return published his voyages in fifty-four letters, at Rome, 1662, in 4 vols. He died in 1662. His work was translated into French, and published in 8 vols. 12mo.

VALLE DE MAIZE, EL, a town of Mexico, in the province of San Luis Potosi, situated

near the Panuco. The houses have an air of neatness, and are well constructed: it has a large square, with extensive and well built edifices, and some handsome churches. It is a place of important trade.

VALLEA, in botany, a genus of plants in the class of polyandria, and order of monogynia.

VALLEY, *n. s.* French *vallée*; Latin *vallis*. A low ground; a hollow between hills.

Live with me, and be my love;

And we will all the pleasure prove

That hills and vallies yield.

Raleigh.

Sweet interchange of hill and valley.

Milton.

I have been ready to freeze on the top of a hill, and in an hour's time after have suffered as great inconvenience from the heat of the valley.

Browne's Travels.

Vallies are the intervals betwixt mountains.

Woodward.

VALLISNERI (Anthony), M.D., an eminent Italian botanist, born in Tuscany, in 1661. He studied under Malpighi, and became physician. He died in 1730: his works were printed at Venice, in 3 vols. 4to., 1733.

VALLISNERIA, a genus of plants of the class of diœcia, and in the order of diandria; ranking in the natural method, under the first and very numerous order, palmeæ.

VALOGNES, a town of Normandy, France, in the department of La Manche. It is situated in a valley on the small river Merderet, about eight miles from the sea. It has 7000 inhabitants, is tolerably built, and contains an hospital, with several churches. Several Roman relics have been found. Valognes had a castle demolished in 1789. Ten miles south east of Cherbourg, and thirty-two north-west of St. Lo.

VALOIS, a small district and duchy in the north of France, now forming the eastern part of the department of the Oise. It gives name to the house of Valois, which possessed the throne of France previous to the Bourbons, during the fourteenth, fifteenth, and sixteenth centuries.

VAL'OR, *n. s.*

VAL'OROUS, *adj.*

VAL'OROUSLY, *adv.*

} French *valeur*; Latin

} *valor*.—Ainsworth. Per-

} sonal bravery; strength;

pro prowess; stoutness: both the adjective and adverb (rarely used) corresponding.

The famous warriors of the antique world

Used trophies to erect in stately wise,

In which they would the records have enrolled

Of their great deeds and valourous emprise. Spenser.

Captain Jarry is a marvellous valourous gentleman.

Shakspeare.

Here I contest

As hotly and as nobly with thy love,

As ever in ambitious strength I did

Contend against thy valour.

Id. Coriolanus.

An innate valour appeared in him when he put himself upon the soldier's defence, as he received the mortal stab.

Howel.

For contemplation he, and valour formed;

For softness she, and sweet attractive grace.

Milton.

Valour gives awe, and promises protection to those who want heart or strength to defend themselves. This makes the authority of men among women; and that of a master-buck in a numerous hard.

Temple's Miscellanies.



**VALPARAISO**, a city and port of Chili, in Quillota, situated on a bay in the South Pacific Ocean. It was formerly a small village, with a few warehouses; but in process of time the excellence of the harbour drew many foreign vessels to it. Its situation is convenient for the purposes of building, as it stands at the foot of a mountain, so near to its cliffs that many houses are erected in the breaches and on the acclivities. Valparaiso has a church, a convent of Franciscans, and one of Augustins, but very few monks. The ships from Peru all touch here, and take in wheat, tallow, Cordovan leather, cordage, and dried fruits; many of these vessels making three trips to Lima during the summer, which lasts from November until June.

**VALSALVA** (Anthony Marie), M. D., a physician, born at Imola, in Italy, in 1666. He became professor of anatomy at Bologna, and wrote a treatise on the Human Ear, in 4to. *Dissertationes Anatomicæ*, 2 vols. 4to. Ven. 1749. He died in 1723.

**VALTELINE**, a lordship of Austrian Italy, in the government of Milan, now forming part of the delegation or district of Sondrio. Its superficial extent is about 1270 square miles; its population about 81,000. It consists of a long valley, traversed by the Adda, extending from east to west, and surrounded by the Alps in all directions, except to the westward, where it opens to the lake of Como. The pastures are extensive, and silk is cultivated to a considerable amount. Their chief town is Sondrio.

**VALVASOR**, an ancient title of dignity among the Anglo-Saxons; the next below a thane or peer. They were called in Latin vice-domini, or vice-lords; and their ladies videntes. They are mentioned by the ancient English lawyers as *virum magnæ dignitatis*, gentlemen of high dignity. Sir Edward Coke speaks highly of them: yet they are now so totally out of use, that antiquarians are not agreed respecting their origin, their office, or the extent of their powers.

|   |   |
|---|---|
| VALUE, <i>n. s., v. a., &amp; v. n.</i> | Fr. <i>value</i> ;<br>Latin <i>valor</i> .<br>Price; worth;<br>high rate; just<br>price: to value<br>is to rate; ap-<br>praise; reckon at; rate highly: also to be worth: valuable is precious; of great value; worthy: valuation, the act of fixing value, or the value fixed: valuator and valuer, he who fixes it: valueless, worthless. |
| VAL'UABLE, <i>adj.</i>                  |   |
| VALUA'TION, <i>n. s.</i>                |   |
| VALUA'TOR,                              |   |
| VAL'UELESS, <i>adj.</i>                 |   |
| VAL'UER, <i>n. s.</i>                   |   |

praise; reckon at; rate highly: also to be worth: valuable is precious; of great value; worthy: valuation, the act of fixing value, or the value fixed: valuator and valuer, he who fixes it: valueless, worthless.

If he be poorer than thy estimation, the priest shall value him. *Leviticus xxvii. 8.*

It cannot be valued with the gold of Ophir. *Job, xxviii. 16.*

She ordered all things, resisting the wisdom of the wisest, by making the possessor thereof miserable; valuing the folly of the most foolish, by making their success prosperous. *Sidney.*

The king must take it ill,  
So slightly valued in his messenger. *Shakspeare. King Lear.*

A counterfeit

Resembling majesty; which, touched and tried, Proves valueless. *Id. King John.*

The peace between the French and us not values The cost that did conclude it. *Id. Henry VIII.*

No reason I, since of your lives you set  
So slight a valuation, should reserve  
My cracked one to more care. *Id. Cymbeline.*

Take out of men's minds false valuations, and it would leave the minds of a number of men poor shrunken things. *Bacon.*

Some value themselves to their country by jealousies of the crown. *Temple.*

He sent him money; it was with this obliging testimony, that his design was not to pay him the value of his pictures, because they were above any price. *Dryden.*

Cæsar is well acquainted with your virtues,  
And therefore sets this value on your life. *Addison.*

Some of the finest treatises in dialogue, many very valued pieces of French, Italian, and English appear. *Id.*

A just account of that valuable person, whose remains lie before us. *F. Atterbury.*

The writers expressed not the valuation of the denarius, without regard to its present valuation. *Arbutnot on Coin.*

To him your orchard's early fruits are due,  
A pleasing offering, when 'tis made by you;  
He values these. *Pope.*

What valuations will the bishops make use of! *Swift.*

The value of several circumstances in story, lessens very much by distance of time; though some minute circumstances are very valuable. *Id. Thoughts.*

**VALVE**, *n. s.* Lat. *valva*. A folding door; any thing that opens and shuts over the mouth of a vessel.

This air, by the opening of the valve, and forcing up the sucker, may be driven out. *Boyle.*

Swift through the valves the visionary fair  
Repassed. *Pope's Odyssey v.*

Opening their valves, self-moved on either side,  
The adamantine doors expanded wide:  
When death commands they close, when death commands divide. *Harte.*

**VALVE**, in hydraulics, pneumatics, &c., is a kind of lid or cover of a tube or vessel, so contrived as to open one way, but which, the more forcibly it is pressed the other way, the closer it shuts the aperture; so that it either admits the entrance of a fluid into the tube or vessel, and prevents its return; or admits its escape, and prevents its re-entrance.

**VALVE**, in anatomy, a thin membrane applied on several cavities and vessels of the body, to afford a passage to certain humors going one way, and prevent their reflux towards the place whence they came.

**VALVERDA** (John de), M. D., a Spanish physician, who attended cardinal Tolido, to Rome. He wrote a treatise on Anatomy, Ven. 1589: and a tract *De Animi et Corporis Sanitate Tuenda*, 1553.

**VAMP**, *v. a.* Supposed by Skinner to be derived from Fr. *avant*, before; and to mean, laying on a new outside. To piece an old thing with some new part.

If you wish  
To vamp a body with a dangerous physick,  
That's sure of death without. *Shakspeare. Coriolanus.*

This opinion had been vamped up by Cardan. *Bentley.*  
I had never much hopes of your vampt play. *Swift.*

**VAMPIRE**, a species of bat. See **VESPERTILIO**.

**VAMPYRE** is also the name of an imaginary being who is believed by the Morlacks to frequent churchyards, and to suck the blood of infants, &c.

**VAN, n. s.**

**VANTGUARD**, or } **Fr. avant, avant-garde.**  
**VANGUARD.** } The front of an army; the first line.

The king's *vant-guard* maintained fight against the whole power of the enemies. *Bacon.*

The martial Idomen, who bravely stood before  
 In *vant-guard* of his troops, and marcht, for strength  
 a savage bore. *Chapman.*

Before each *van* pick forth the airy knights. *Milton.*

The foe he had surveyed,  
 Arranged, as t' him they did appear,  
 With *van*, main battle, wings and rear. *Hudibras.*

*Van* to *van* the foremost squadrons meet,  
 The midst battles hastening up behind. *Dryden.*

**VAN, v. a. & n. s.** Lat. *vannus*; a fan or wing.  
 To fan; to winnow: a fan, or wing. Obsolete.  
 The corn which in *vanuing* lieth lowest is the best. *Bacon.*

His sail-broad *vans*

He spreads for flight; and in the surging smoke  
 Up-lifted spurns the ground. *Milton's Paradise Lost.*

His disabled wing unstrung;  
 He wheeled in air, and stretched his *vans* in vain;  
 His *vans* no longer could his flight sustain. *Dryden.*

The other token of their ignorance of the sea was  
 an oar; they call it a corn *van*.

*Broom on the Odyssey.*

**VAN DIEMEN'S LAND**, an island in the Southern Ocean, separated from New Holland by Bass's Straits. The country was first discovered by Tasman in 1633. In 1773 it was visited by captain Furneaux, and by captain Cook in 1777; since which period it has been visited by different navigators. Among others Bruny D'Entrecasteaux, the French rear-admiral, made the coast of Van Diemen's Land in 1792, and afterwards revisited it in 1793. This coast was afterwards visited by lieutenants Bass and Flinders, who made a more ample survey of it, and also of the coasts of New Holland. Since this period the several colonies have been sent from the original establishment made by the British at Port Jackson to this island. In 1804 Hobart's Town was founded, about nine miles up the Derwent; and another settlement, namely, Launceston, was founded about thirty miles from the mouth of Port Dalrymple, and 130 miles in a straight line from Hobart's Town. Swan River is a settlement of this island.

Van Diemen's Land, situated between 40° 42' and 43° 43' S. lat., and between 145° 31' and 148° 22' E. long., has not so repulsive appearance from the coast as New Holland. Many fine tracts are found on the borders of the sea, and the interior is almost invariably possessed of a soil admirably adapted to all the purposes of cultivation. This island abounds in streams: on the summits of many of the mountains there are large lakes, some of which are the sources of considerable rivers. Of these the Derwent, Huon, Tamar, and Swan rivers, rank in the first class. There is perhaps no island in the world of the same size which can boast of so many

fine harbours: the best are the Derwent, Port Davy, Macquarie harbour, Port Dalrymple, and Oyster Bay; the first is on its southern side, the second and third on its western, the fourth on its northern, and the fifth on its eastern; so that it has excellent harbours in every direction. Between the animals and vegetables found here and in New Holland there is almost a perfect resemblance.

The British colonies have of late received a great accession of settlers from Great Britain. According to the last accounts, they were gradually improving, and assuming more and more the appearance of a civilised community. From an account of a tour of inspection, by governor Macquarie, it appears that in July, 1821, the population of the island amounted to 6372, exclusive of the civil and military officers; and that it contained 23,838 head of horned cattle, 182,468 sheep, 421 horses, and 10,683 acres of land in cultivation.

**VANAKEN** (Joseph), a Flemish painter, born at Antwerp. He excelled in painting satin, velvet, lace, and embroidery. He died in 1749.

**VANBRUGH** (Sir John), a celebrated English dramatic writer and architect, descended of a family in Cheshire which came from France. He was born about the middle of the reign of Charles II., and received a liberal education. His first comedy, called the Relapse, or Virtue in Danger, was acted in 1697 with great applause; which gave him such encouragement that he wrote eleven more comedies. He was appointed Clarendieu king at arms, which he afterwards disposed of. In 1716 he was appointed surveyor of the works at Greenwich hospital; he was likewise made comptroller general of his majesty's works, and surveyor of all the gardens and waters. He was an able architect; but his performances in that way are esteemed heavy. Under his direction were raised Blenheim House in Oxfordshire, Claremont in Surrey, and his own house at Whitehall. He died of a quinsy in 1726.

**VANCOUVER** (Captain George), of the royal navy, wrote an account of a Voyage of Discovery into the North Pacific Ocean, and Round the World, in 1790—1795. He died 10th of May, 1798.

**VANDALE** (Anthony), M. D., a learned physician, born in Holland, in 1638. He wrote A Treatise on Oracles, which was answered by several writers, and abridged by Foutenelle; also a work on the Origin of Idolatry; also a Dissertation on Aristeas, and the Septuagint Version. He died at Haerlem, in 1708.

**VANDALS**, a brave and numerous, but barbarous people of Europe, who, along with the Goths, Heruli, Suevi, Alani, and Burgundians, emigrated in large bodies from their respective native countries, and spreading fire, sword, and desolation, every where, overthrew the Roman empire, in the fifth century. They were several times, however, successfully opposed by Stilicho. See **ROME**. From the similarity of their name to that of the two countries above described, they seem to have originally come from Lower Saxony and Pomerania. Others make them a tribe of the Sarmatians, or Slavonians.



**VANDELLIA**, in botany, a genus of plants belonging to the class didynamia and order angiospermia. The calyx is subquadrid; the corolla ringent; the two exterior filaments proceed from the disc of the lip of the corolla; the anthers are connected; the capsule is unilocular and polyspermous. There is only one species known, viz. *V. diffusa*.

**VANDER-LINDEN** (Henry), professor of divinity at Franeker, was born in 1546; and suffered much for his attachment to the Reformation: in favor of which he wrote. He died in 1614.

**VANDER-LINDEN** (John Antonides), grandson of the preceding, was born at Enckhuysen in 1609, and educated at Leyden. He graduated at Franeker in 1630, and in 1639 was made professor of physic in that university. In 1640 he went to that of Leyden. He wrote many medical works, and died in 1664.

**VANDERMEER** (John), a famous Dutch painter, who excelled in sea pieces: he was drowned in 1691, aged sixty four.

**VANDER-MEULEN** (Anthony Francis), a Flemish painter, born at Brussels in 1634. He painted the battles of Louis XIV., and married a daughter of the famous Le Brun. He died at Paris in 1690.

**VANDERMONDE** (Charles Augustus), M.D., a native of Macao, in China, born in 1772. He became an eminent physician, and was appointed censor royal at Paris, where he died in 1762. His chief works are, 1. *Essai sur la Maniere de Perfectionner l'Espece Humaine*, 2 vols. 12mo.; 2. *Dictionnaire de Sante*; 3. *Dissertation Anatomique*.

**VANDERMONDE**, a late celebrated French mathematician, born at Paris in 1735, famous for his love of science, and infamous for joining the Terrorists. He died in 1795.

**VANDERVELDE** (Adrian), an eminent painter, born at Amsterdam, in 1639. His works are rare and highly valued. He died in 1672.

**VANDERVELDE** (Isaiah), an eminent painter; his battles are esteemed. He died at Leyden in 1630.

**VANDERVELDE** (John), brother to the above, an eminent engraver.

**VANDERVELDE** (William), brother to Isaiah, and born at Leyden, was also eminent in painting sea fights. He came over to London, got a pension, and died in 1693.

**VANDERVELDE** (William), son of the above, excelled his father, and died in London, in 1797.

**VANDERVENNE** (Adrian), a painter born at Delft, in 1589. He excelled in scenes of humor.

**VANDYCK** (Sir Anthony), a celebrated painter, born at Antwerp in 1599. After giving several early proofs of his excellent genius, he became the disciple of the illustrious Rubens. From this celebrated master he received not only instruction in his art, but was by his generosity enabled to go to Rome. Having staid a short time there, he removed to Venice, where he attained the beautiful coloring of Titian, Paul Veronese, and the Venetian school, which appeared from the many excellent pictures he drew at Genoa. After having spent a few years abroad, he returned to Flanders, with so noble,

so easy, and natural a manner of painting, that Titian himself was hardly his superior; and no other master could equal him in portraits. He then went to England, when his superior genius soon brought him into great reputation; and, above all, he excelled in portraits, which he drew with an inconceivable facility, and for which he charged a very high price. For some of them he received 400 guineas a-piece. He soon found himself loaded with honors and riches. He married a daughter of lord Ruthven, earl of Gowry. His house was so frequented by persons of the greatest quality that it rather resembled the court of a prince than the lodgings of a painter. He died in 1641, and was buried in St. Paul's. It was said he left £40,000.

**VANDYCK** (Philip), another eminent painter, born at Amsterdam, in 1680. He died in 1752.

**VANE**, *n. s.* Belg. *vane*. A plate hung on a pin to turn with the wind.

A man she would spell backward;  
If tall, a lance ill headed:

If speaking, why a vane blown with all winds.

*Shakspeare.*

**VANE** (Sir Henry), son of Sir Henry Vane, secretary of state to Charles I., was born in 1612, and educated at Magdalen Hall, Oxford. He then went to Geneva, where he became a republican; which led to a quarrel with his father, who was a rigid loyalist. He then sailed to New England, whence he returned in 1637, and during the civil war took an active part against the king. He, however, boldly opposed Cromwell's usurpation, for which Oliver imprisoned him. In 1662 he was tried and beheaded for high treason. He wrote some books, in the spirit of the times.

**VANE**, a thin slip of bunting hung to the mast-head, or some other conspicuous place in the ship, to show the direction of the wind. It is commonly sewed upon a wooden frame called the stock, which contains two holes whereby to slip over the spindle, upon which it turns round as the wind changes.

**VANIERE** (James), a French Jesuit, a Latin poet, born in 1664. He wrote an admired poem, entitled *Predium Rusticum*; Paris, 1736, 12mo. He died at Toulouse, in 1739.

**VANIL/LA**, *n. s.* Fr. *vanille*. A plant. The fruit of those plants is used to scent chocolate.—Miller.

When mixed with *vanillios*, or spices, chocolate acquires the good and bad qualities of aromatic oils.  
*Arbutuot on Aliments.*

**VAN/ISH**, *v. n.* Fr. *evanouir*; Lat. *vanesco*. To lose perceptible existence; pass away; pass from sight.

High honour is not only gotten and born by pain and danger, but must be nursed by the like, or else *vanisheth* as soon as it appears to the world. *Sidney.*

Whither are they *vanished*?

—Into the air; and what seemed corporal  
Melted as breath into the wind.

*Shakspeare.*

All these delights will *vanish*.

*Milton.*

That spirit of religion and seriousness, by which we had distinguished ourselves, *vanished* all at once, and a spirit of infidelity and prophaneness started up.

*Atterbury.*

He cut the cleaving sky,  
And in a moment *vanished* from her eye.

*Pope.*

**VANITY**, *n. s.* Fr. *vanité*; Lat. *vanitas*. Emptiness; uncertainty; inanity; fruitless desire or endeavour; empty pleasure; ostentation.

*Vanity of vanities all is vanity.* Eccl.

*Vanity* possesseth many, who are desirous to know the certainty of things to come. Sidney.

The ground-work thereof is true, however they, through *vanity*, whilst they would not seem to be ignorant, do thereupon build many forged histories of their own antiquity. Spenser.

I must

Bestow upon the eyes of this young couple  
Some *vanity* of mine art. Shakespeare. *Tempest*.

To use long discourse against those things which are both against scripture and reason, might rightly be judged a *vanity* in the answerer not much inferior to that of the inventor.

Raleigh's *History of the World*.

Cast not her serious wit on idle things;  
Make her free will slave to *vanity*. Davies.

Sin with *vanity* had filled the works of men. Milton.

Can you add guilt to *vanity*, and take  
A pride to hear the conquests which you make? Dryden.

But that they equal, if not surpass them in the  
*vanity* of their desires. South.

Think not, when woman's transient breath is fled,  
That all her *vanities* at once are dead;  
Succeeding *vanities* she still regards,  
And, though she plays no more, o'erlooks the cards. Pope.

'Tis an old maxim in the schools,  
That *vanity's* the food of fools;  
Yet now and then your men of wit  
Will condescend to take a bit. Swift's *Miscellany*.

The corruption of the world indulges women in great *vanity*; and mankind seem to consider them in no other view than as so many painted idols, that are to allure and gratify their passions. Law.

**VAN LAER** (Peter), painter, better known by his mock name of *BAMBOCIO*, which see. He painted inns, shops, cattle, &c. He died in 1673.

**VAN LOO** (Charles Andrew), painter, was born at Nice in 1705, and studied under his brother John. After visiting Italy, he became painter to the king, chevalier of St. Michael, and member of the Academy of painting. He died in 1765.

**VAN LOO** (John Baptist), painter, born at Aix in 1694, and died there in 1746.

**VAN MANDER** (Charles), painter, was born near Courtray in 1548. His principal pictures are Adam and Eve, and the Deluge. He died in 1606.

**VANNES**, a considerable town in the north-west of France, the see of a bishop, and the chief place of the department of the Morbihan. It is advantageously situated at the bottom of a bay interspersed with islets, about two miles and a half from the sea. It contains a population of nearly 11,000; but is in general far from well built. Vannes has two suburbs separated from it by a wall and ditch. The only public buildings are the cathedral, the hospital, the old castle, and the churches. The port admits only small vessels. The environs are pleasant. In 1800 the royalists under Georges were defeated here, by the republicans under Brune. Sixty miles south-west of Rennes, and seventy west by north of Nantes.

**VANQUISH**, *v. a.* Fr. *vaincre*. To conquer.  
**VANQUISHER**, *n. s.* } quer; overcome; sub-

due; confute in argument: the noun substantive corresponding.

Were 't not a shame, that, whilst you live at jar,  
The fearful French, whom you late *vanquished*,  
Should make a start o'er seas, and *vanquish* you? Shakespeare.

He would pawn his fortunes  
To hopeless restitution, so he might  
Be called your *vanquisher*. Id.

They subdued and *vanquished* the rebels in all encounters. Clarendon.

The gods the victor, Cato the *vanquished* chose:  
But you have done what Cato could not do,  
To chuse the *vanquished*, and restore him too. Dryden.

This bold assertion has been fully *vanquished* in a late reply to the bishop of Meaux's treatise.

F. Atterbury.

Troy's *vanquisher*, and great Achilles' son.  
A. Phillips.

**VAN-SWIETEN** (Gerard), a celebrated physician, was born May 7th, 1700, at Leyden. After studying at Louvain he returned to Leyden, and became the pupil of Boerhaave. In 1725 he took his doctor's degree, and published an inaugural thesis on the Structure of the Arteries. He afterwards employed himself in Commentaria in H. Boerhaavi Aphorismis de Cognoscendis et Curandis Morbis, of which the first volume appeared in 1741. Soon after he was appointed to a medical professorship at Leyden; but objections arising on the score of his religion, being a Catholic, he was obliged to resign. The empress Maria Theresa indemnified him by inviting him to Vienna, where, in 1745 he was made a professor in the university, and afterwards first physician to the empress and a baron of the empire. He was also imperial librarian, and director-general of the study of medicine in Austria. He completed his work on the Aphorisms of Boerhaave by the publication of the fifth volume in 1772. These commentaries have been translated into French and English. He enjoyed the highest reputation till his death at Schoenbrunn, June 18th, 1772. He was the author of a treatise on the Diseases of the Army; and of a work on Epidemics, the latter of which was published posthumously, by professor Stoll, 1782, 2 vols. 8vo.

**VANTAGE**, *n. s.* From advantage. Gain; profit.

What great *vantage* do we get by the trade of a pastor? Sidney.

We yet of present peril be afraid;  
For needless fear did never *vantage* none. Spenser.

Be assured, Madam, 'twill be done  
With his next *vantage*. Shakespeare. *Cymbeline*.

With the *vantage* of mine own excuse,  
Hath he excepted most against my love. Shakespeare.

He had them at *vantage*, being tired and harassed with a long march. Bacon.

The pardoned person must not think to stand upon the same *vantage* of ground with the innocent. South.

**VANT'BRASS**, *n. s.* Fr. *avant bras*. Armor for the arm.

I'll hide my silver beard in a gold beaver,  
And in my *vantbrass* put this withered brawn. Shakespeare.

Put on *vantbrass*, and greaves, and gauntlet. Milton



**VAPID**, *adj.* Lat. *vapidus*. Dead; having the spirit evaporated; spiritless; maukish; flat.

Thy vines let feed a-while  
On the fat refuse; lest, too soon disjoined,  
From sprightly to sharp or rapid change. *Philips*.

The effects of a *vapid* and viscous constitution of blood, are stagnation, acrimony, and putrefaction.

*Arbutnot.*

**VAPOR**, *n. s., v. n., &c.* Fr. *vapeur*; Lat.

**VAPORER**, *n. s.* [*v. a.*] *vapor*. Any thing exhalable; any thing that mingles with the

**VAPORISH**, *adj.*

**VAPOROUS**.  
air; fume; steam; wind; vain imagination: to vapor is, to pass off in fume or steam; bully; brag: also to effuse; scatter in vapor: the derivatives all correspond.

It proceeded from the nature of the *vapourish* place.

*Sandys.*

The *vaporous* night approaches. *Shakspeare.*

Swift running waters *vapour* not so much as standing waters. *Bacon's Natural History.*

Opium loseth some of its poisonous quality, if *vapoured* out, and mingled with spirit of wine.

*Bacon.*

If the mother eat much beans, or such *vaporous* food, it endangereth the child to become lunatick.

*Id.*

Jove a dreadful storm called forth  
Against our navy; covered shore and all  
With gloomy *vapours*. *Chapman.*

Break off this last lamenting kiss,  
Which sucks two souls, and *vapours* both away.

*Donne.*

He'd laugh to see one throw his heart away,  
Another sighing *vapour* forth his soul,  
A third to melt himself in tears. *Ben Jonson.*

These are all the mighty powers  
You vainly boast, to cry down ours;  
And what in real value 's wanting,  
Supply with *vapouring* and ranting. *Hudibras.*

That I might not be *vapoured* down by insignificant testimonies, I used the name of your society to annihilate all such arguments. *Glanceville.*

Some more subtle corporeal element may so equally bear against the parts of a little *vaporous* moisture, as to form it into round drops.

*More against Atheism.*

The morning is the best, because the imagination is not clouded by the *vapours* of meat. *Dryden.*

To this we must ascribe the spleen, so frequent in studious men, as well as the *vapours*, to which the other sex are so often subject.

*Addison's Spectator.*

For the imposthume, the *vapour* of vinegar, and any thing which creates a cough, are proper.

*Arbutnot on Diet.*

A little tube, jetting out from the extremity of an artery, may carry off these *vaporous* steams of the blood. *Cheyne.*

Pallas grew *vapourish* once and odd;  
She would not do the least right thing. *Pope.*

**VAPOR**, in philosophy, the particles of bodies rarefied by heat, and thus rendered specifically lighter than the atmosphere, in which they rise to a considerable height. See **EVAPORATION**, **DAMP**, **GAS**, &c. Many kinds of vapor are unfriendly to animal life, but the most noxious are those which arise from metallic substances. In the smelting and refining of lead, a white vapor arises, which, falling upon the grass in the neighbourhood, imparts a poisonous quality to it, so that the cattle which feed there will die; and in

like manner stagnant waters impregnated with this vapor will kill fish. In some places the earth exhales vapor of a very noxious quality: such as the Grotto del Cani, and other places in Italy, where a mephitic vapor constantly hovers over the surface of the ground, proving instantly fatal to such animals as are immersed in it. In some parts of the world there have been instances of people killed, and almost torn to pieces, by a vapor suddenly bursting out of the earth under their feet. Of the aqueous vapor raised from the earth by the sun's heat are formed the clouds; but though these are commonly at no great distance from the earth, we cannot thence determine the height to which the vapors ascend. See **METEOROLOGY**.

**VAPOR-BATH**, in chemistry, a term applied to a chemist's bath or heat, wherein a body is placed so as to receive the fumes of boiling water. It consists of two vessels, disposed over one another in such manner as that the vapor raised from the water contained in the lower heats the matter enclosed in the upper. It is very commodious for the distilling of odoriferous waters, and the drawing of spirit of wine.

**VAPOR-BATH**, in medicine, is used when a sick person is made to receive the vapors arising from some liquid matter placed over a fire. Vapor-baths are very commonly used in Russia and other northern countries, not for any medical purpose, but as a luxury. Males and females are described as going promiscuously into close rooms or stoves heated to a very high degree with steam; and, after luxuriating for some time under the hands of the attendants who rub them down, they rush out into the air, or even plunge into cold water.

**VAR**, a department of France, forming the south-east extremity of the kingdom, and bordered by the country of Nice on the east, by the Mediterranean on the south, and by a part of the Alps on the north. Branches of these mountains extend into the north and north-east divisions of this department; so that it is in general rugged and uneven, the only extensive levels being along the coast. The rivers descending from these mountains are the Var, Verdon, Esteron, and Artubi, along with a number of smaller streams. The climate varies, being in some parts bleak even in this southern latitude, in others mild and warm; but in several districts of the low ground the air is infected by vapors from stagnant water. The corn raised is not equal to the consumption; imports are paid for by wine, brandy, and vinegar, all of which are made in quantities from the grape. The pastures are good only in particular spots. The animals chiefly reared are sheep, goats, and asses; and the sheep are sent in summer, like the merinos in Spain, to mountain pasture. Honey and wax are exported. Of minerals, in whatever variety they may exist, hardly any have been worked except coals. The manufactures are of insignificant amount; the chief article is silk. The fisheries along the coast are considerable.

This department has an extent of about 2900 square miles, and a population of 285,000. It is on the whole a backward part of France.

The common language is a dialect, composed of French with a mixture of Italian. It is subject for judicial proceedings to the royal court of Aix, and is divided into four arrondissements, viz. Toulon, Brignolles, Grasse, and Draguignan. The last, though a small place, is, from its central situation, the capital of the department. It was at St. Tropez, in this department, that Buonaparte embarked for Elba, in May, 1814, and at Cannes, near its eastern extremity, that he re-landed on the 1st of March following.

VARESE, an inland town of Austrian Italy, in the Milanese, situated on the river Verbano, near a lake called Varese. It has 7000 inhabitants, who cultivate, manufacture, and trade in silk. It is twenty-seven miles W. N. W. of Milan, and has in its vicinity a number of villas, and an elegant modern palace situated on an eminence, surrounded by pleasant gardens and fountains. The lake of Varese is a fine expanse of water.

VARIABLE, in geometry and analytics, is a term applied by mathematicians to such quantities as are considered in a variable or changeable state, either increasing or decreasing. Thus the abscisses and ordinates of an ellipsis, or other curve line, are variable quantities; because these vary or change their magnitude together, the one at the same time with the other. But some quantities may be variable by themselves alone, or while those connected with them are constant: as the abscisses of a parallelogram, whose ordinates may be considered as all equal, and therefore constant: also the diameter of a circle, and the parameter of a conic section, are constant, while their abscisses are variable. See FLUXIONS.

VARIATION OF THE COMPASS is the deviation of the magnetic or mariner's needle from the meridian or true north and south line. On the continent it is called the declination of the magnetic needle, which is a better term. At the period when the polarity of the magnet was first observed in Europe, whether originally, or as imported from China, the magnetic direction, both in Europe and in China, was nearly in the plane of the meridian. It was therefore an inestimable present to the mariner, giving him a sure direction in his course through the pathless ocean. But by the time that the European navigators had engaged in their adventurous voyages to far distant shores, the deviation of the compass needle from the meridian was very sensible even in Europe; and it is somewhat surprising that the Dutch and Portuguese navigators did not observe it on their own coasts. The son of Columbus positively says that it was observed by his father in his first voyage to America. It is certain that Gonzales Oviedo and Sebastian Cabot observed it in their voyages. But the deviation of the compass from the meridian was not then allowed by mathematicians. Pedro de Medina at Valladolid, in his *Arte de Navegar*, published in 1545, positively denies the variation of the compass. But, so soon after as 1556, Martin Cortez, in a treatise of navigation, treated it as a thing completely established, and gives rules and instruments for discovering its quantity. About the year 1580 Norman published

his discovery of the dip of the needle, and speaks largely of the horizontal deviation from the plane of the meridian, and attributes it to the attraction of a point, not in the heavens, but in the earth, and describes methods by which he hoped to find its place. To the third, and all subsequent editions of Norman's book (called the new attractive), was subjoined a dissertation by Mr. Borroughs, on the variation of the compass, in which are recorded the quantity of this deviation in many places; and he laments the obstacle which it causes to navigation by its total uncertainty previous to observation. Observations were made from time to time, and published in the subsequent treatises on navigation. But in 1635 the mariners were thrown into a new and great perplexity, by the publication of a *Discourse Mathematical on the Variation of the Magnetical Needle*, by Mr. Henry Gillebrand, Gresham professor of astronomy. He had compared the variations observed at London by Burroughs, Gunter, and himself, and found that the north end of the mariner's needle was gradually drawing more to the westward, and it has been found to deviate more and more to the westward ever since, as may be seen from the following little table in Waddington's Navigation.

| London. |                      |            |
|---------|----------------------|------------|
| 1576    | Norman               | 11° 15' E. |
| 1580    | Burrough             | 11 17      |
| 1622    | Gunter               | 6 12       |
| 1634    | Gillebrand           | 4 5        |
| 1662    |                      | 0 0        |
| 1666    | Sellers              | 0 34 W.    |
| 1670    |                      | 2 06       |
| 1672    |                      | 2 30       |
| 1700    |                      | 9 40       |
| 1720    |                      | 13 —       |
| 1740    |                      | 16 10      |
| 1760    |                      | 19 30      |
| 1774    |                      | 22 20      |
| 1778    | Philosophical Trans. | 22 11      |

The celebrated Halley recommended the matter in the most earnest manner to the attention of government; and, after much solicitation, obtained a ship to be sent on a voyage of discovery for this very purpose. In this vessel he repeatedly traversed the Atlantic Ocean, and went as far as 50° S. lat. See his speculations on this subject in the *Philosophical Transactions*, 1683 and 1692. Having collected a prodigious number of observations made by others, and compared them with his own, he published in 1700 a synoptical account of them in a very ingenious form of a sea chart, where the ocean was crossed by a number of lines passing through those places where the compass had the same deviation. Thus, in every point of one line there was no variation in 1700; in every point of another line the compass had 20° of east variation; and in every point of a third line it had 20° of west variation. These lines have since been called Halleyan lines, or curves. This chart was surely very valuable; yet the author himself pointed out objections to it. He stated that the change of variation was very different in different places, and in the same place at different times; and confessed that he had not dis-



covered any general principle by which these changes could be connected. But the chart was of immense use; although it became gradually less valuable, and in 1745 was exceedingly erroneous. This made Messrs. Mountain and Dodson, fellows of the Royal Society, apply to the admiralty and to the great trading companies for permission to inspect their records, and to extract from them the observations of the variations made by their officers. They got all the assistance they could demand; and, after having compared above 50,000 observations, they composed new variation charts, fitted for 1745 and 1756.

Cortes ascribed the variation of the needle to the attraction of an eccentric point, and Bond thought this point was placed not in the heavens, but in the earth. This notion made the basis of the famous Theory of Magnetism of Dr. Gilbert of Colchester, published about A. D. 1600: he asserted that the earth was a great magnet, and that all the phenomena of the mariner's compass were the effects of this magnetism. He showed at least that these phenomena were precisely such as would result from such a constitution of the earth; that is, that the positions of the mariner's needle in different parts of the earth were precisely the same with those of a small magnet similarly situated with respect to a very large one. Although he had made more magnetic experiments than all that had gone before him put together, still the magnetical phenomena were but little known till long after. But Gilbert's theory (for so it must be truly esteemed) of the magnetical phenomena is now completely confirmed.

Dr. Halley first imagined that the north pole of the great magnet or load-stone which was included in the bowels of the earth was not far from Baffin's Bay, and its south pole in the Indian Ocean south-west from New Zealand. But he could not find any positions of these two poles which would give the needle that particular position which it was observed to assume in different parts of the world; and he concluded that the great terrestrial loadstone had four irregular poles (a thing not unfrequent in natural loadstones, and easily producible at pleasure), two of which are stronger, and two weaker. When the compass is at a great distance from the two north poles, it is affected so as to be directed nearly in a plane passing through the strongest. But if we approach it much more to the weakest, the greater vicinity will compensate for the smaller absolute force of the weak pole, and occasion considerable irregularities. Dr. Halley endeavours to account for the change of variation by supposing this internal magnet not to adhere to the external shell which we inhabit, but to form a nucleus or kernel detached from it on all sides, and to be so poised as to revolve freely round an axis, of which we hoped to discover the position by observation of the compass. The philosopher will find nothing in this ingenious hypothesis inconsistent with our knowledge of nature. Dr. Halley imagined that the nucleus revolved from east to west round the same axis with the earth. Thus the poles of the magnet would change their positions relatively to the earth's surface, and this would change

the direction of the compass needle. The great Euler undertook to ascertain the position of the needle in every part of the earth. But he found the four poles would engage him in an analysis which would be excessively intricate, and has contented himself with computing for two only; observing, that this supposition agrees so well with observation, that it is highly probable that this is the real constitution of the terrestrial magnet, and that the coincidence would have been perfect if he had hit on the due positions of the two poles. He places one of them in lat  $76^{\circ}$  N., and long.  $96^{\circ}$  W. from Teneriffe. The south pole is placed in lat.  $58^{\circ}$  S., and long.  $158^{\circ}$  W. from Teneriffe. These are their situations for 1757. Euler has annexed to his dissertation on the thirtieth volume Mem. R. A. Berlin, a chart of Halleyan curves suited to these assumptions, and fitted to the year 1757. Since then, another large variation chart has been published fitted to a late period; but it is unaccompanied by authorities.

The daily variation of the compass was first observed by Mr. George Graham in 1722 (Philosophical Transactions, No. 383), and reported to the Royal Society of London. It usually moves (at least in Europe) to the westward from 8 A. M. till 2 P. M., and then gradually returns to its former situation. The diurnal variations are seldom less than  $0^{\circ} 5'$ , and often much greater. Mr. Graham mentions (Philosophical Transactions, No. 428) some observations by a captain Hume in a voyage to America, where he found the variation greatest in the afternoon. This being a general phenomenon has also attracted the attention of philosophers. The most detailed accounts of it to be met with are those of Mr. Canton, in Philosophical Transactions, vol. li., part 1, p. 399, and those of Van Swinden, in his Treatise on Electricity and Magnetism. From the observations of Mr. Canton, it appears that, although there be great irregularities in this diurnal change of position of the mariner's needle, there is a certain average which is kept up with considerable steadiness. The following was the average of greatest daily change of position in the different months of the year, observed in his house, Spital Square, in 1759.

|          |    |    |        |     |    |          |     |
|----------|----|----|--------|-----|----|----------|-----|
| January  | 7' | 8" | May    | 13' | —" | Sep. 11' | 43" |
| February | 8  | 58 | June   | 13  | 21 | Oct. 10  | 36  |
| March    | 11 | 27 | July   | 13  | 14 | Nov. 8   | 9   |
| April    | 12 | 26 | August | 12  | 19 | Dec. 6   | 58  |

Mr. Canton attempts to account for these changes of position, by observing that the force of a magnet is weakened by heat. A small magnet being placed near a compass needle, E. N. E. from it, so as to make it deflect  $45^{\circ}$  from the natural position, the magnet was covered with a brass vessel, into which hot water was poured. The needle gradually receded from the magnet three-fourths of a degree, and returned gradually to its place as the water cooled. This is confirmed by uniform experience. The parts of the earth to the eastward are first heated in the morning, and therefore the force of the earth is weakened, and the needle is made to move to the westward. But, as the sun warms the western side of the earth in the afternoon, the motion of the needle

must take the contrary direction. But this way of explaining, by a change in the force of the earth, supposes that the changing cause is acting in opposition to some other force. We do not know of any such. The force, whatever it is, seems simply to produce its own effect, in deranging the needle from the direction of terrestrial magnetism. If Æpinus's theory of magnetic action be admitted, viz. that a bar of steel has magnetism induced on it by propelling the quiescent and mutually repelling particles of magnetic fluid to one end, or attracting them to the other, we may suppose that the sun acts on the earth as a magnet acts on a piece of soft iron, and in the morning propels the fluid in the north-west parts. The needle directs itself to this constipated fluid, and therefore it points to the eastward of the magnetic north in the afternoon. And (to abide by the same theory) this induced magnetism will be somewhat greater when the earth is warmer; and therefore the diurnal variation will be greatest in summer. This change of position of the constipated fluid must be supposed to bear a very small ratio to the whole fluid, which is naturally supposed to be constipated in one pole of the great magnet, in order to give it magnetism. Thus we shall have the diurnal variation a very small quantity. This is departing, however, from the principle of Mr. Canton's explanation; and indeed we cannot see how the weakening the general force of the terrestrial magnet should make any change in the needle in respect to its direction; nor does it appear probable that the change of temperature produced by the sun will penetrate deep enough to produce any sensible effect on the magnetism. And, if this be the cause, we think that the derangements of the needle should vary as the thermometer varies, which is not true. The other method of explaining is much better, if Æpinus's theory of magnetic attraction and repulsion be just; and we may suppose that it is only the secondary magnetism (i.e. that of the magnetisable minerals) that is sensibly affected by the heat; this will account very well for the greater mobility of the fluid in summer than in winter. A great objection to either of these explanations is the prodigious diversity of the diurnal variations in different places. This is so very great that we can hardly ascribe the diurnal variations to any change in the magnetism of the primitive terrestrial magnet, and must rather look for its cause in local circumstances. This conclusion becomes more probable, when we learn that the deviation from the meridian and the deviation from the horizontal line are not affected at the same time. Van Swinden ascribes them solely to changes produced on the needles themselves. If their magnetism be greatly deranged by the sun's position, it may throw the magnetic centre away from the centre of the needle's motion, and thus may produce a very small change of position. But, if this be the cause, we should expect differences in different needles. Van Swinden says that there are such, and that they are very great; but as he has not specified them, we cannot draw any conclusion.

The *aurora borealis* is observed (in Europe)

to disturb the needle exceedingly, sometimes drawing it several degrees from its position. It is always observed to increase its deviation from the meridian, that is, an *aurora borealis* makes the needle point more westerly. This disturbance sometimes amounts to six or seven degrees, and is generally observed to be greatest when the *aurora borealis* is most remarkable. This is a very curious phenomenon, and we have not been able to find any connexion between this meteor and the position of a magnetic needle. It is to be observed, that a needle of copper or wood, or any substance besides iron, is not affected. We long thought it an electric phenomena, and that the needle was affected as any other body balanced in the same manner would be; but a copper needle would then be affected. Indeed it may still be doubted whether the *aurora borealis* be an electric phenomenon. They are very frequent and remarkable in Sweden; and yet Bergman says that he never observed any electric symptoms about them, though in the mean time the magnetic needle was greatly affected. We see the needle frequently disturbed both from its general annual position, and from the change made on it by the diurnal variation. This is probably the effect of *auroræ boreales* which are invisible, either on account of thick weather or day-light. Van Swinden says he seldom or never failed to observe *auroræ boreales* immediately after any anomalous motion of the needle; and concluded that there had been one at the time, though he could not see it. Since no needle but a magnetic one is affected by the *aurora borealis*, we may conclude that there is some natural connexion between this meteor and magnetism. This should farther incite us to observe the circumstance formerly mentioned, viz. that the south end of the dipping needle points to that part of the heavens where the rays of the *aurora* appear to converge. We wish that this were diligently observed in places which have very different variation and dip of the mariner's needle. For the diurnal and this irregular variation, consult the Dissertations of Celsius and of Hiorter, in the Memoirs of Stockholm; Wargentin, Philosophical Transactions, vol. 48. Braun (Comment Petropol. Novi, T. V. VII. IX.); Graham and Canton. See also MAGNETISM.

VARIATION OF CURVATURE, in geometry, is used for that inequality or change which takes place in the curvature of all curves except the circle, by which their curvature is more or less in different parts of them; and this variation constitutes the quality of the curvature of any line.

VARICOUS, *adj.* } Latin *varix, varicosus*.  
VAR'IX, *n. s.* } Disended with dilatation:  
a dilatation of the vein.

There are instances of one vein only being *varicous*, which may be destroyed by tying it above and below the dilatation. *Sharpe.*

In ulcers of the legs, accompanied with *varices* or dilatations of the veins, the *varix* can only be assisted by the bandage. *Id.*

VARICOSE, or VARICOSE. See SURGERY.

VARIETY, or VARIETAS, in botany, is a change in some less essential part or quality; as color, size, pubescence, or age. Externally; by the



plaiting or interweaving of the branches; by bundling or uniting of several stalks into one broad flat one; by the greater breadth, or narrowness, or curling of leaves; by becoming awnless, or smooth, or hirsute. Internally; by becoming mutilated in the corolla; or having one larger than ordinary; by luxuriance, multiplication, or fulness; by becoming proliferous, or crested; by bearing bulbs instead of seeds; or being viviparous. The usual causes of variation are, climate, soil, exposure, heat, cold, winds, and culture; and often disease; hence morbus, in botany, is synonymous with *varietas*.

**VARIGNON** (Peter de), mathematician, born at Caen, in 1654. He was geometrician to the academy of Sciences at Paris, and professor of mathematics in the college of Mazarin. He wrote a treatise on mechanics, &c., and died in 1722.

**VARILLAS** (Antony), historian, born at Gueret in 1624. He wrote a History of France, Anecdotes of Florence, &c., and died in 1696.

**VARINAS**, a province of the Caraccas, bounded on the north by the provinces of Maracaibo and Venezuela, east by the plains of Caraccas and the Orinoco, west by Merida and New Granada, and south by Juan de los Llanos, or Casanare. This province was formed in the year 1787, by separating the southern districts of Venezuela and Maracaibo, when it was also constituted a distinct government. The chief products are tobacco, cattle, sugar, coffee, cotton, indigo, and all the fruits of the torrid zone. Varinas is intersected by numerous large and navigable rivers, which occasionally inundate and fertilise its plains. Of these the Apure, the Portuguesa, the Guanarito, the Bocono, Guanapalo, the Arauca, the Capanaparo, the Sinaruco, and the Meta are the most noted.

**VARINAS**, the capital of the above province, is situated about 300 miles south-east of Caraccas. It is a neat little place.

**VARINI**, a people of Germany.—Tacit. de Ger. 40.

**VARIOLÆ**, the small-pox. See **MEDICINE**, Index.

**VARIOLA**, in medicine (Lat. *varius*, because it disfigures the skin), the small-pox. A genus of disease in the class pyrexia, and order exanthemata, of Cullen. It is distinguishable by synocha, eruption of red pimples on the third day, which on the eighth day contain pus, and afterwards by drying fall off in crusts. This very contagious disease is supposed to have been introduced into Europe from Arabia, where there arises a fever, that is succeeded by a number of little inflammations in the skin, which proceed to suppuration, of which the matter formed is capable of communicating the disorder. It makes its attack on people of all ages, but the young of both sexes are most liable to it; and, though it will prevail at all seasons, it is most prevalent in the spring and summer.

The red small-pox is distinguished into the distinct and confluent, implying that in the former the eruptions are perfectly separate from each other, and that in the latter they run much into one another. Both species are produced

either by breathing air impregnated with the effluvia arising from the bodies of those who labor under the disease, or by the introduction of a small quantity of the variolous matter into the habit by inoculation; and it is probable that the difference of the small-pox is not owing to any difference in the contagion, but depends on the state of the person to whom it is applied, or on certain circumstances concurring with the application of it.

Four different states or stages are observed in the small pox: first the febrile; second the eruptive; third the maturative; and fourth that of the declination or scabbing.

When the disease has arisen naturally, and is of the distinct kind, the eruption is commonly preceded by a redness in the eyes, soreness in the throat, pains in the head, back, and loins, weariness and faintness, alternate fits of chilliness and heat, thirst, nausea, inclination to vomit, and a quick pulse. In some instances these symptoms prevail in a high degree, and in others they are very moderate and trifling. In very young children, startings and convulsions are apt to take place a short time previous to the appearance of the eruption, always giving great alarm to those not conversant with the frequency of the occurrence.

About the third or fourth day from the first seizure, the eruption shows itself in little red spots on the face, neck, and breast, and these continue to increase in number and size for three or four longer, at the end of which time they are to be observed dispersed over several parts of the body. If the pustules are not numerous the febrile symptoms will generally go off on the appearance of the eruption, or then will become very moderate.

It sometimes happens that a number of little spots of an erysipelatous nature are interspersed amongst the pustules; but these generally go in again, as soon as the suppuration commences, which is usually about the fifth or sixth day, at which period, a small vesicle containing an almost colorless fluid may be observed upon the top of each pimple. Should the pustules be perfectly distinct and separate from each other, the suppuration will probably be completed about the eighth or ninth day, and they will then be filled with a thick yellow matter; but, should they run much into each other, it will not be completed till some days later.

When the pustules are very thick and numerous on the face, it is apt about this time to become much swelled, and the eye-lids to be closed up, previous to which there usually arises a hoarseness and difficulty of swallowing, accompanied with a considerable discharge of viscid saliva. About the eleventh day the swelling of the face usually subsides, together with the affection of the fauces, and is succeeded by the same in the hands and feet, after which the pustules break, and discharge their contents; and then, becoming dry, they fall in *crusts*, leaving the skin which they covered of a brown-red color, which appearance continues for many days. In those cases where the pustules are large, and are late in becoming dry and falling off, they are very apt to leave pits behind them; but where they

are small, suppurate quickly, and are few in number, they neither leave any marks behind them, nor do they occasion much affection of the system.

In the confluent small-pox, the fever which precedes the eruption is much more violent than in the distinct, being attended usually with great anxiety, heat, thirst, nausea, vomiting, and a frequent and contracted pulse, and often with coma or delirium. In infants, convulsive fits are apt to occur, which either prove fatal before any eruption appears, or they usher in a malignant species of the disease. The eruption usually makes its appearance about the third day, being frequently preceded or attended with a rosy efflorescence, similar to what takes place in the measles; but the fever, although it suffers some slight remission on the coming out of the eruption, does not go off as in the distinct kind; on the contrary, it becomes increased after the fifth or sixth day, and continues considerable throughout the remainder of the disease.

As the eruption advances, the face, being thickly beset with pustules, becomes very much swelled, the eye-lids are closed up, so as to deprive the patient of sight, and a gentle salivation ensues, which, towards the eleventh day, is so viscid as to be spit up with great difficulty. In children a diarrhoea usually attends this stage of the disease instead of a salivation, which is to be met with only in adults. The vesicles on the top of the pimples are to be perceived sooner in the confluent small-pox than in the distinct; but they never rise to an eminence, being usually flattened in; neither do they arrive to proper supuration, as the fluid contained in them, instead of becoming yellow, turns to a brown color. About the tenth or eleventh day, the swelling of the face usually subsides, and then the hands and feet begin to puff up and swell, and about the same time the vesicles break, and pour out a liquor that forms into brown or black crusts, which, upon falling off, leave deep pits behind them, that continue for life; and, where the pustules have run much into each other, they then disfigure and scar the face very considerably.

Sometimes it happens that a putrescency of the fluids takes place at an early period of the disease, and shows itself in livid spots interspersed among the pustules, and by a discharge of blood by urine, stool, and from various parts of the body.

In the confluent small-pox, the fever, which perhaps had suffered some slight remission from the time the eruption made its appearance to that of maturation, is often renewed with considerable violence at this last-mentioned period, which is what is called the secondary fever, and this is the most dangerous stage of the disease. It has been observed, even amongst the vulgar, that the small-pox is apt to appear immediately before or after the prevalence of the measles. Another curious observation has been made relating to the symptoms of these complaints, namely, that if, while a patient labors under the small-pox, he is seized with the measles, the course of the former is retarded till the eruption of the measles is finished. The measles appear for instance on the second day of the eruption of

small-pox; the progress of this ceases till the measles terminate by desquamation, and then it goes on in the usual way. Several cases are, however, recorded in the *Medical and Physical Journal*, as likewise in the third volume of the *Medical Commentaries*, in which a concurrence of the small-pox and measles took place without the progress of the former being retarded. The distinct small-pox is not attended with danger, except when it attacks pregnant women, or approaches nearly in its nature to that of the confluent; but this last is always accompanied with considerable risk, the degree of which is ever in proportion to the violence and permanence of the fever, the number of pustules on the face, and the disposition to putrescency which prevails. When there is a great tendency this way, the disease usually proves fatal between the eighth and eleventh day, but in some cases death is protracted till the fourteenth or sixteenth. The confluent small-pox, although it may not prove immediately mortal, is very apt to induce various morbid affections.

Both kinds of small-pox leave behind them a predisposition to inflammatory complaints, particularly to ophthalmia and visceral inflammations, but more especially of the thorax; and they not unfrequently excite scrofula into action which might otherwise have lain dormant in the system.

The treatment of small-pox will differ materially according to the species of the disease. In the distinct, ushered in by synochal pyrexia, it may be occasionally proper in persons of a middle age, good constitution, and plethoric habit, to begin by taking away a moderate quantity of blood; the exhibition of an emetic will be generally advisable, provided there be no material tenderness of the stomach; the bowels must then be cleared, antimonial and other diaphoretics employed, and the antiphlogistic regimen strictly enforced. It is particularly useful in this disease during the eruptive fever to expose the patient freely to cold air, as taught by the celebrated Sydenham; and even the cold affusion may be proper where there is much heat and redness of the skin, unless the lungs be weak. After the eruption has come out, the symptoms are usually so much mitigated that little medical interference is necessary. But the confluent small-pox requires more management; after evacuating the *primæ viæ*, and employing other means to moderate the fever in the beginning, the several remedies adapted to support the strength and counteract the septic tendency, must be resorted to as the disease advances. The chief points of difference are, that bark may be more freely given to promote the process of supuration, and opium to relieve the irritation in the skin; when the eruption has come out it will be generally proper to direct a full dose of this remedy every night to procure rest, using proper precautions to obviate its confining the bowels, or determining to the head. Where alarming convulsions occur also, opium is the medicine chiefly to be relied upon, taking care subsequently to remove any source of irritation from the *primæ viæ*. Sometimes the tepid bath may be useful under these circumstances, and favor the ap-



pearance of the eruption, where the skin is pale and cold, the pulse weak, &c. Where at a more advanced period the pustules flatten, and alarming symptoms follow, the most powerful cordial and antispasmodic remedies must be tried, as the confectio opii, æther, wine, &c. For the relief of the brain, or other important part particularly affected, local means may be used as in typhus. To prevent the eyes being injured, a cooling lotion may be applied, and blisters behind the ears, or even leeches to the temples.

VARIOLA VACCINA, or Cow-Pox, the name commonly given to a very singular disease which has occupied a great share of the attention of medical men. It has been many years prevalent in some of the great dairy counties in England, particularly Gloucestershire; and it has been long understood by the farmers and others in these counties, that it for ever exempts all persons who have been infected with it from the contagion of small-pox. Dr. Jenner was the first person who made this fact practically certain, by introducing the vaccine inoculation. The following is an abstract of his account of the distemper:—‘There is a disease to which the horse is frequently subject. The farriers have termed it the grease. It is an inflammation and swelling in the heel, discharging matter. In the dairy county of Gloucestershire a great number of cows are kept, and the office of milking is performed indiscriminately by men and maid servants. One of the former having been appointed to apply dressings to the heels of a horse affected with the grease, incautiously bears his part in milking the cows with some particles of the infectious matter adhering to his fingers. When this is the case, it commonly happens that a disease is communicated to the cows, and from the cows to the dairy maids, which spreads through the farm until most of the cattle and domestics feel its unpleasant consequences. This disease has obtained the name of the cow-pox. It appears on the nipples of the cows in the form of irregular pustules. At their first appearance they are commonly of a palish blue, or rather of a color somewhat approaching to livid, and are surrounded by an erysipelatous inflammation. These pustules, unless a timely remedy be applied, frequently degenerate into phagedenic ulcers, which prove extremely troublesome. The animals become indisposed, and the secretion of milk is much lessened.’ That this disease originates with the horse has been disputed; but, as the fact is by no means ascertained, the arguments on both sides are of minor importance. The great question to be determined is, whether this disease, when communicated to the human subject, prevents the possibility of future infection from small-pox; and, happily, the weight of evidence arising from the experience of several years’ universal practice, leaves little reason to doubt that it does, although some medical men of eminence persist in a contrary opinion. The following remarks will be of use to the practitioner. It is of the utmost consequence that the matter employed should be the genuine vaccine virus. Dr. Jenner points out the following particulars as sources of a spurious cow-pox: 1. That arising from pustules on the nipples or

udder of the cow, which pustules contain no specific virus. 2. From matter, although originally possessing the specific virus, which has suffered a decomposition, either from putrefaction, or any other cause less obvious to the senses. 3. From matter taken from an ulcer in an advanced stage, though the ulcer arose from a true cow-pox. 4. From matter produced on the human skin from the contact of some peculiar morbid matter degenerated by a horse. Many have remarked that inoculation with the vaccine matter is more apt to fail in communicating the infection than with variolous matter, especially if it be suffered to dry upon the lancet before it is used. Care should therefore be taken to moisten it a considerable time before it is used. Danger may arise from mistaking the local effects of the vaccine disease for its effects upon the constitution. To guard practitioners against this error, Dr. Woodville makes the following remarks:—‘When a considerable tumor and an extensive redness takes place at the inoculated part, within two or three days after the infectious matter has been applied, the failure of inoculation may be considered as certain, as where neither redness nor tumor is the consequence. This rapid and premature advancement of the inflammation will always be sufficient to prevent the inoculator from mistaking such cases for those of efficient inoculation. But there are other circumstances under which I have found the inoculation to be equally ineffectual, and which, as being more likely to deceive the inoculator, require his utmost circumspection and discrimination. I here allude to cases in which it happens that though the local affection does not exhibit much more inflammation than is usual, yet neither vesicle nor pustule supervenes; and in which, about the sixth or seventh day, it rapidly advances into an irregular suppurative, producing a festering or crustaceous sore. Care, however, should be taken to distinguish this case from that in which the inoculated part assumes a pustular form, though it continues for one or two days only, when the same appearances follow as those above described; for I have experienced the latter inoculation to be as effectual as where the tumor has proceeded in the most regular manner. The efflorescence at the inoculated part, which seldom intervenes before the eighth, or later than the eleventh day, is to be regarded as an indication that the whole system is affected; and, if the patient has not felt any indisposition on or before its approach, he may be assured that there will not be any afterwards. When efflorescence does not commence till the eleventh day, it is almost always attended with more indisposition than when it occurs on the eighth or ninth day. The efflorescence is more frequent in young infants than in children advanced to three or four years of age; and the former have the efflorescence and the disease more favorably than the latter, inasmuch that by far the greater part of them have no perceptible illness, and require no medicines. On the other hand, in adults the cow-pox frequently produces head-ache, pain of the limbs, and other febrile symptoms, for two or three days, which are greatly relieved by a brisk purgative.’

**VAR'LET**, *n. s.* } Old Fr. *varlet*, now *valet*.  
**VAR'LETRY**. } Anciently a servant or foot-  
 man; a mean fellow; a scoundrel: varlety is,  
 a crowd of low people; a rabble.

Such lords ill example do give,  
 Where *varlets* and drabs so may live.

*Tusser's Husbandry.*

**VARNA**, a town of European Turkey, in Bulgaria; 112 miles north-east of Adrianople, and 144 north of Constantinople; lon. 27° 59' E.; lat. 43° 7' N.; population, 16,000. It has an old castle, twelve mosques, two Greek churches, the most commodious port in Bulgaria, and a large trade with Constantinople. It is situated on a gulf or bay of the Black sea, to which it gives name, at the mouth of the river Varna. In 1444, Ladislaus, king of Hungary, was defeated and slain by Amurath I., sultan of the Turks, near this town. In 1783, Varna resisted the attacks of the Russians, but admitted the army of the autocrat on October 11, 1828.

**VAR'NISH**, *n. s. & v. a.* Fr. *vernis*; Lat. *vernix*. A matter laid upon wood, metal, or other bodies, to make them shine: hence cover; palliative of a fault: to cover or decorate with something shining; to palliate: a varnisher corresponds.

O vanity!

To set a pearl in steel so meanly *varnished*. *Sidney.*

We'll put on those shall praise your excellence,  
 And set a double *varnish* on the same. *Shakespeare.*

The fame of Cicero had not borne her age so well,  
 if it had not been joined with some vanity. Like  
 unto *varnish*, that makes ceilings not only shine, but  
 last. *Bacon.*

They *varnish* all their errors, and secure  
 The ills they act, and all the world endure.

*Denham.*

Specious deeds on earth, which glory excites;  
 Or close ambition *varnished* o'er with zeal. *Milton.*

An oil obtained of common oil may probably be  
 of good use to surgeons and *varnishers*. *Boyle.*

His manly heart was still above

Dissembled hate, or *varnished* love.

*Dryden.*

Men espouse the well-endowed opinions in fashion,  
 and then seek arguments to make good their beauty,  
 or *varnish* over and cover their deformity.

*Locke's Works.*

Speak the plain truth, and *varnish* not your crimes!

*Philips.*

Cato's voice was ne'er employed

To clear the guilty, and to *varnish* crimes. *Addison.*

Modest dullness lurks in thoughts disguise;

Thou *varnisher* of fools, and cheat of all the wise.

*Pope.*

**VARNISH**, a clear limpid fluid, capable of  
 hardening without losing its transparency, used  
 by painters, gilders, &c., to give a lustre to their  
 works, to preserve them and defend them from  
 the air. A coat of varnish ought to possess the  
 following properties:—1. It must exclude the  
 action of the air; because wood and metals are  
 varnished to defend them from decay and rust.  
 2. It must resist water; for otherwise the effect  
 of the varnish could not be permanent. 3. It  
 ought not to alter such colors as are intended to  
 be preserved by these means. Resins are used  
 as the basis of varnish. Resins may be dis-  
 solved by three agents. 1. By fixed oil. 2.  
 By volatile oil. 3. By alcohol. And accord-  
 ingly we have three kinds of varnish: the fat or

oil varnish, essential varnish, and spirit varnish.  
 Before a resin is dissolved in a fixed oil, it is  
 necessary to render the oil drying. For this  
 purpose the oil is boiled with metallic oxides;  
 in which operation the mucilage of the oil com-  
 bines with the metal, while the oil itself unites  
 with the oxygen of the oxide. To accelerate  
 the drying of this varnish, it is necessary to add  
 oil of turpentine. The essential varnishes con-  
 sist of a solution of resin in oil of turpentine.  
 The varnish being applied, the essential flies off  
 and leaves the resin. This is used only for  
 paintings. When resins are dissolved in alcohol,  
 the varnish dries very speedily, and is subject to  
 crack; but this fault is corrected by adding a  
 small quantity of turpentine to the mixture,  
 which renders it brighter, and less brittle when  
 dry.

The following are the ingredients in different

varnishes:—For toilet-boxes, cases, fans, &c.—

Dissolve two ounces of gum mastich, and eight  
 ounces of gum sandarach, in a quart of alcohol;

then add four ounces of Venice turpentine. For

vaincoats, cane-chairs, iron-chairs, grates.—Dis-

solve, in a quart of alcohol, eight ounces of gum

sandarach, two ounces of seed lac, four ounces

of resin; then add six ounces of Venice turpen-

tine. For fiddles, &c.—Put four ounces of gum

sandarach, two ounces of lac, two ounces of gum

mastich, one ounce of gum elemi, into a quart of

alcohol, and hang them over a slow fire till they

are dissolved; then add two ounces of turpen-

tine. To employ vermilion for painting equipages.

—Dissolve in a quart of alcohol six ounces of

sandarach, three ounces of gum lac, and four

ounces of resin; afterwards add six ounces of

turpentine. Gold-colored varnish.—Pound sepa-

rately four ounces of stick lac, four ounces of

gamboge, four ounces of dragon's blood, four

ounces of anotta, and one ounce of saffron: put

each of them separately into a quart of alcohol,

and expose them for five days in a narrow-

mouthed bottle to the sun, or in a very warm

room, shaking them frequently. When all are

melted mix them together. In order to make

silver imitate gold exactly when covered with

this varnish, the quantity of ingredients must be

somewhat greater. The method of gilding sil-

ver-leaf, &c., with this varnish, is as follows:—

The silver-leaf being fixed on the subject in the

same manner as gold leaf, by the interposition of

proper glutinous matters, the varnish is spread

upon the piece with a brush or pencil. The

first coat being dry, the piece is again and again

washed over with the varnish till the color ap-

pears sufficiently deep. What is called gilt lea-

ther, and many picture frames, have no other

than this counterfeit gilding. For plain frames

thick tin-foil may be used instead of silver. The

tin-leaf, fixed on the piece with glue, is to be

burnished, then polished with emery and a fine

linen cloth, and afterwards with putty applied

in the same manner: being then lacquered over

with varnish five or six times, it looks very

nearly like burnished gold. The same varnish,

made with a less proportion of the coloring ma-

terials, is applied also on works of brass. Oil

varnishes.—Gum, copal, and amber, are the sub-

stances principally employed in oil varnishes;



as they possess solidity and transparency.—The copal is used for varnishing light, the amber for dark colors. It is best to dissolve them before mixing them with the oil. They should be melted in a pot on the fire; and are in a proper state for receiving the oil when they give no resistance to the iron spatula, and when they run off from it drop by drop. When the oil is well mixed with the copal or amber, take it off the fire; and, when it is pretty cool, pour in a greater quantity of the essence of turpentine than the oil that was used. After the varnish is made it should be passed through a linen cloth. Oil varnishes become thick by keeping; but, when they are to be used, it is only necessary to pour in a little essence of turpentine, and to put them for a little on the fire. The following are the most useful oil varnishes:—*White copal varnishes*.—On sixteen ounces of melted copal pour four, six, or eight, ounces of linseed oil, boiled and quite free from grease. When they are well mixed take them off the fire, and when pretty cool pour in sixteen ounces of the essence of Venice turpentine. Amber varnish is made in the same way. *For coaches and iron work*.—This varnish is composed of two ounces of bitumen of Palestine, two ounces of resin, with amber melted separately, and afterwards mixed; six ounces of oil are then added, and afterwards the turpentine, as directed above.—Golden colored varnish may be made also by substituting linseed oil for alcohol. *Essential oil varnishes*.—They are for pictures. They are usually made of gum mastich and turpentine dissolved together in some essential oil, and are applied cold to the picture. *Varnish for glass*.—Pulverise a quantity of gum adragant, and let it dissolve for twenty-four hours in the white of eggs well beat up; then rub it gently on the glass with a brush.

*Lac-varnishes*, or lacquers, consist of different resins in a state of solution, of which the most common are mastich, sandarach, lac, benzoin, copal, amber, and asphaltum. The menstrua are either expressed or essential oils, as also alcohol. For a lac-varnish of the first kind, the common painter's varnish is to be united by gently boiling it with some more mastich or colophony, and then diluted again with a little more oil of turpentine. The latter addition promotes both the glossy appearance and drying of the varnish. Of this sort is the amber-varnish. To make this varnish, half a pound of amber is kept over a gentle fire in a covered iron pot, in the lid of which there is a small hole, till it is observed to become soft, and to be melted together into one mass. As soon as this is perceived, the vessel is taken from off the fire, and suffered to cool a little; when a pound of good painter's varnish is added to it, and the whole suffered to boil up again over the fire, keeping it continually stirring. After this it is again removed from the fire; and, when it is become somewhat cool, a pound of oil of turpentine is to be gradually mixed with it. Should the varnish when it is cool happen to be yet too thick, it may be attenuated with more oil of turpentine. This varnish has always a dark brown color, because the amber is previously half burned in this operation; but, if it be required

of a bright color, amber powder must be dissolved in transparent painter's varnish in Papin's machine by a gentle fire.

As an instance of the second sort of lac-varnishes, with ethereal oils alone, may be adduced the varnish made with oil of turpentine. For making this, mastich alone is dissolved in oil of turpentine by a very gentle digesting heat, in close glass vessels. This is the varnish used for the modern transparencies employed as window blinds, fire-screens, and for other purposes. These are commonly prints, colored on both sides, and afterwards coated with this varnish on those parts that are intended to be transparent. Sometimes fine thin calico, or Irish linen, is used for this purpose; but it requires to be primed with a solution of isinglass, before the color is laid on.

Copal may be dissolved in genuine Chio turpentine, according to Mr. Sheldrake, by adding it in powder to the turpentine previously melted, and stirring till the whole is fused. Oil of turpentine may then be added to dilute it sufficiently. Or the copal in powder may be put into a long-necked mattress with twelve parts of oil of turpentine, and digested several days on a sand-heat, frequently shaking it. This may be diluted with one fourth or one-fifth of alcohol. Metallic vessels or instruments covered with two or three coats of this and dried in an oven each time, may be washed with boiling water, or even exposed to a still greater heat, without injury to the varnish.

A varnish of the consistence of thin turpentine is obtained for ærostatic machines, by the digestion of one part of elastic gum, or caoutchouc, cut into small pieces, in thirty-two parts of rectified oil of turpentine. Previously to its being used, however, it must be passed through a linen cloth, in order that the undissolved parts may be left behind.

The third sort of lac-varnishes consists in the spirit-varnishes. The most solid resins yield the most durable varnishes; but a varnish must never be expected to be harder than the resin naturally is of which it is made. Hence it is the height of absurdity to suppose that there are any incombustible varnishes, since there is no such thing as an incombustible resin. But the most solid resins by themselves produce brittle varnishes; therefore something of a softer substance must always be mixed with them whereby this brittleness is diminished. For this purpose gum-elemi, turpentine, or balsam of copavia, are employed in proper proportions. For the solution of these bodies the strongest alcohol ought to be used, which may very properly indeed be distilled over alkali, but must not have stood upon alkali. The utmost simplicity in composition, with respect to the number of the ingredients in a formula, is the result of the greatest skill in the art; hence it is no wonder that the greatest part of the formulas and recipes that we meet with, are composed without any principle at all.

In conformity to these rules, a fine colorless varnish may be obtained, by dissolving eight ounces of gum-sandarach and two ounces of Venice turpentine in thirty-two ounces of alco-

hol by a gentle heat. Five ounces of shell-lac and one of turpentine, dissolved in thirty-two ounces of alcohol by a very gentle heat, give a harder varnish, but of a reddish cast. To these the solution of copal is undoubtedly preferable in many respects. This is effected by triturating an ounce of powder of gum-copal which has been well dried by a gentle heat with a drachm of camphor, and, while these are mixing together, adding by degrees four ounces of the strongest alcohol, without any digestion.

Between this and the gold-varnish there is only this difference, that some substances that communicate a yellow tinge are to be added to the latter. The most ancient description of two sorts of it, one of which was prepared with oil, and the other with alcohol, is to be found in Alexius Pedemontanus De i Secreti, Lucca, of which the first edition was published in the year 1557. But it is better prepared, and more durable, when made after the following prescription:—Take two ounces of shell-lac, of arnatto and turmeric of each one ounce, and thirty grains of fine dragon's-blood, and make an extract with twenty ounces of alcohol in a gentle heat.

*Oil-varnishes* are commonly mixed immediately with the colors, but lac or lacquer-varnishes are laid on by themselves upon a burnished colored ground; when they are intended to be laid upon naked wood, a ground should be first given them of strong size, either alone or with some earthy color, mixed up with it by levigation. The gold lacquer is simply rubbed over brass, tin, or silver, to give them a gold color.

Before a resin is dissolved in a fixed oil, it is necessary to render the oil drying. For this purpose the oil is boiled with metallic oxides, in which operation the mucilage of the oil combines with the metal, while the oil itself unites with the oxygen of the oxide. To accelerate the drying of this varnish, it is necessary to add oil of turpentine.

The essential varnishes consist of a solution of resin in oil of turpentine. The varnish being applied, the essential oil flies off, and leaves the resin. This is used only for paintings. When resins are dissolved in alcohol, the varnish dries very speedily, and is subject to crack; but this fault is corrected by adding a small quantity of turpentine to the mixture, which renders it brighter, and less brittle when dry. The colored resins or gums, such as gamboge, dragon's-blood, &c., are used to color varnishes. To give lustre to the varnish after it is laid on, it is rubbed with pounded pumice-stone and water; which being dried with a cloth, the work is afterward rubbed with an oiled rag and tripoli. The surface is last of all cleaned with soft linen cloths, cleared of all greasiness with powder of starch, and rubbed bright with the palm of the hand.

Varnishes before they are used should be carefully kept from dust. When used they should be lifted lightly with a brush and spread upon a ground altogether free from dirt and moisture. The substance after being varnished should be exposed to the heat of the sun, or placed in a warm room covered with a glass case. Oil varnishes require more heat than alcohol varnishes. The varnish should be put on very quickly, mak-

ing great strokes with the pencil or brush, taking care that these strokes never cross one another; it should be spread equally, and never thicker than a leaf of paper: a second coat should not be put on till the first is quite dry. If the varnish, after being put on, becomes dull and uneven, it must be taken off entirely and new varnish put on. When wainscot is to be varnished it is first painted of a wooden color. This color is made by infusing in water either red or yellow ochre (according to the color wished for), terra ombria (a kind of ochre), and white lead; into this as much as necessary is put of parchment paste. Two thin coats of this are to be put on, and, after they are quite dry, the varnish. Varnishes are polished with pumice-stone and tripoli earth. The pumice-stone must be reduced to an impalpable powder, and put upon a piece of serge moistened with water; with this the varnished substance is to be rubbed lightly and equally. The tripoli must also be reduced to a very fine powder, and put upon a clean woollen cloth moistened with olive oil, with which the polishing is to be performed. The varnish is then to be wiped with soft linen, and, when quite dry, cleaned with starch or Spanish white, and rubbed with the palm of the hand or with a linen cloth. To recover colors or varnish, and to take off the dirt and filth which may adhere to them, a ley is used made of potash and the ashes of lees of wine. Take forty-eight ounces of potash and sixteen of the above-mentioned ashes, and put them into six quarts of water, and the ley is made: instead of the ashes an equal quantity of potash would probably do as well. To clean dirty colors, dilute some of this ley with four times its quantity of water, and rub the picture with it; then wash it with river water, and when dry give it a coat or two of varnish. In order to take off a varnish, wash it with the above-mentioned ley, then with water, and then lift it off the substance on which it was with any iron instrument.

The *Chinese* varnish is not a composition, but a resin which exudes from a tree called in China *tsi-chu*, 'varnish tree.' This tree grows in several provinces of the southern parts of China. They do not procure varnish from the *tsi-chu* until its trunk is nearly five inches in diameter, which size it seldom attains to before seven or eight years. This liquor distils only in the nighttime and during the summer season. To cause the gum to flow, they make several rows of incisions round the trunk, the number of which is proportioned to the vigor of the tree. Shells are inserted into the incisions for the purpose of receiving the liquor distilled from them. They are made towards evening, and next morning they collect the varnish which has fallen into the shells; the following evening they are again inserted, and this operation is continued until the end of the summer. 1000 trees yield almost in one night twenty pounds of varnish. While the varnish distils it exhales a malignant vapor, the bad effects of which can only be prevented by preservatives and great precaution. The merchant who employs the workmen is obliged to keep by him a large vase filled with rape-oil, in which a certain quantity of those fleshy fila-



ments have been boiled that are found in hog's-lard, and which do not melt. When the workmen are going to fix the shells to the trees they carry some of this oil along with them, and rub their face and hands with it, which they do with greater care when they collect in the morning the varnish that has distilled during night. After eating they wash their whole bodies with warm water, in which the bark of the chestnut-tree, fir wood, crystallised saltpetre, and some other drugs, have been boiled. When they are at work near the trees they put upon their heads a small cloth bag in which there are two holes, and cover the fore-part of their bodies with a kind of apron made of doe-skin, which is suspended from their necks with strings, and tied round them with a girdle. They also wear boots, and have coverings on their arms made of the same kind of skin. The laborer who should attempt to collect varnish, without using this precaution, would soon be punished for his rashness, and the most dreadful effects would ensue. The disorder shows itself by tetters which become of a bright red color, and spread in a very short time; the body afterwards swells, and the skin bursts and appears covered with a universal leprosy. — Besides the lustre and beauty which that varnish gives to many of the Chinese manufactures, it has also the property of preserving the wood upon which it is laid, especially if no other matter be mixed with it. It prevents it from being hurt either by dampness or worms. There are two methods of laying on the varnish; the simplest is, when it is immediately laid on the wood. The work is first polished, and then daubed over with a kind of oil which the Chinese call *tong yeou*. When this oil is dry it receives two or three coats of varnish, which remain so transparent that all the shades and veins of the wood may be seen through them. If the artist is desirous of entirely concealing the substance on which they are laid, nothing is necessary but to add a few more coats; these give the work a shining surface, the smoothness of which equals that of the most beautiful ice. When the work is dry, various figures are painted upon it in gold and silver, such as flowers, birds, trees, temples, dragons, &c. A new coat of varnish is then sometimes laid over these figures, which preserves them, and adds much to their splendor. The second method requires more preparation. The Chinese workmen fix to the wood by means of glue a kind of pasteboard, composed of paper, hemp, lime, and other ingredients, well beaten, that the varnish may incorporate with them. Of this they make a ground perfectly smooth and solid, over which the varnish is laid in thin coats that are left to dry one after the other. It often happens that, the lustre of varnished tables and other pieces of furniture is insensibly destroyed by tea and warm liquors. 'The secret of restoring to varnish its shining black colors,' says a Chinese author, 'is to expose it for one night to a white hoar frost, or to cover it some time with snow.' For a method of imitating Chinese varnish, see TURNING.

VARNISH, in numismatography, signifies the colors antique medals have acquired in the earth. The beauty which nature alone is able to give to

medals, and art has never yet attained to counterfeit, enhances the value of them. Some are blue, like the turquoise; others a bright vermilion color; and others a shining brown, vastly finer than Brasil figures. But the most usual varnish is a beautiful green, which hangs to the finest strokes without effacing them, more accurately than the finest enamel does on metals. No metal but brass is susceptible of this; for the green rust that gathers on silver always spoils it, and it must be got off with vinegar or lemon juice. Falsifiers of medals have a false or modern varnish which they use on their counterfeits, to give them the appearance or air of being antique. But this may be discovered by its softness.

VARNISH, in pottery, signifies a sort of shipping coat, wherewith potter's-ware, delft-ware, china-ware, &c., are covered, which gives them a smoothness and lustre. Melted lead is generally used for the first, and smalt for the second. See GLAZING.

VARRO (Marcus Terentius), a Roman writer, was born B. C. 110. He served under Pompey against the pirates, and obtained a naval crown. He wrote a treatise on the Latin language, and another *De Re Rustica*, which are extant, with some fragments of Menippean satires. They were printed at Venice in the year 1474, fol., and Rome 1537, 8vo. He died B. C. 29.

VARRO (Attacinus), the Gaul, a Latin poet of the age of Cæsar, was born in Narbonne. He wrote a poem de *Bello Sequanico*, and translated into Latin the Argonautics of Apollonius. Only some fragments remain.

VARRONIA, in botany, a genus of plants belonging to the class of pentandria, and to the order of monogynia; and arranged in the natural system under the forty-first order, *asperifolia*. The corolla is quinquefid; the fruit a drupa, with a quadriocular kernel. There are six species; none of which are natives of Britain.

VARUS (Quintilius), a Roman proconsul, commander of the armies in Germany. He killed himself A. D. 10, on his army being cut to pieces by the enemy, under Arminius.

|   |                             |
|---|-----------------------------|
| VAR Y, <i>v. a., v. n., &amp;</i>       | French <i>varier</i> ; Lat. |
| VAR IABLE, <i>adj.</i> [ <i>n. s.</i> ] | <i>varior</i> . To change;  |
| VAR IABLY, <i>adv.</i>                  | make unlike itself; di-     |
| VAR IABLENESS, <i>n. s.</i>             | versify; make of dif-       |
| VAR IANCE,                              | ferent kinds: as a verb     |
| VAR IATION,                             | neuter, to be change-       |
| VAR IEGATE, <i>v. a.</i>                | able; alter; appear in      |
| VAR IEGATION, <i>n. s.</i>              | different forms or col-     |
| VAR IETY,                               | ors; deviate; disa-         |
| VAR IIOUS, <i>adj.</i>                  | gree: as a noun sub-        |
| VAR IIOUSLY, <i>adv.</i>                | stantive (not used)         |

change; deviation: variable is, changeable; mutable; shifting: the adverb and noun substantive following correspond: variance is, disagreement; discord: variation, change; mutation; successive change; difference; verbal inflexion: to variegated is, to diversify; make various: the noun substantive corresponding: variety, change; dissimilitude; intermixture of different kinds, colors, or general appearances; many and different kinds: various is, several; different; unfixed; changeable: the adverb corresponding.

I am come to set a man at variance against his father.  
*Matthew.*

Such smiling rogues as these sooth every passion :  
Renegs, affirm, and turn their halcyon beaks,  
With every gale and vary of their masters.  
*Shakspeare.*

Sir Walter Blunt,  
Stained with the variation of each soil  
Betwixt that Holmedon and this seat of ours. *Id.*  
Darkling stands  
The varying shore o' the world.

*Id. Antony and Cleopatra.*

O swear not by the 'inconstant moon,  
That monthly changes in her circled orb,  
Lest that thy love prove likewise variable.

*Shakspeare.*

The inclosed warmth which the earth hath in  
itself, stirred up by the heat of the sun, assisteth  
nature in the speedier procreation of those varieties  
which the earth bringeth forth.

*Raleigh's History of the World.*

Having been variously tossed by fortune, directed  
his course to a safe harbour. *Bacon.*

He had a strange interchanging of large and un-  
expected pardons, with several executions ; which  
could not be imputed to any inconstancy, but to a  
principle he had set unto himself, that he would vary,  
and try both ways in turn. *Id.*

After much variation of opinions, the prisoner was  
acquitted of treason, but by most voices found guilty  
of felony. *Hayward.*

Vast crowds of vanquished nations march along,  
Various in arms, in habit, and in tongue. *Drayton.*

A cause of law, by violent course,  
Was, from a variance, now a war become. *Daniel.*

The master's hand, which to the life can trace  
The airs, the lines, the features of the face,  
May, with a free and bolder stroke, express  
A varied posture, or a flattering dress. *Denham.*

His heart I know how variable, and vain,  
Self-left. *Milton's Paradise Lost.*

Let your ceaseless change  
Vary to our great Creator still new praise. *Milton.*  
Herbs sudden flowered,

Opening their various colours. *Id.*

All sorts are here that all the 'earth yields ;  
Variety without end. *Id. Paradise Lost.*

If we admit a variation from the state of his crea-  
tion, that variation must be necessarily after an eter-  
nal duration, and therefore within the compass of  
time. *Hale.*

God hath divided the genius of men according to  
the different affairs of the world ; and varied their  
inclinations, according to the variety of actions to be  
performed. *Browne.*

He observed the variation of our English from the  
original, and made an entire translation of the whole  
for his private use. *Fell.*

We are to vary the customs according to the time  
and country where the scene of action lies. *Dryden.*

Those various squadrons, variously designed ;  
Each vessel freighted with a several load. *Id.*

I may seem sometimes to have varied from his  
sense ; but the greatest variations may be fairly de-  
duced from him. *Id.*

The names of mixed modes want standards in na-  
ture whereby to adjust their signification ; therefore  
they are very various and doubtful. *Locke.*

The crime consists in violating the law, and vary-  
ing from the right rule of reason. *Id.*

Plant your choice tulips in natural earth, some-  
what impoverished with very fine sand ; else they  
will soon lose their variegations. *Evelyn's Kalender.*

Set not any one doctrine of the gospel at variance  
with others, which are all admirably consistent. *Sprat.*

Variety is nothing else but a continued novelty.

*South.*

You are not solicitous about the variability of the  
weather, or the change of seasons. *Addison.*

While fear and anger, with alternate grace,  
Pant in her breast, and vary in her face. *Id. Cato.*

If the sun's light consisted of but one sort of rays,  
there would be but one colour in the whole world,  
nor would it be possible to produce any new colour  
by reflections or refractions ; and by consequence that  
the variety of colours depends upon the composition  
of light. *Newton's Opticks.*

The shells are filled with a white spar, which  
variegates and adds to the beauty of the stone.

*Woodward on Fossils.*

They had fountains of variegated marble in their  
rooms. *Arbuthnot.*

There is but one common matter, which is diversi-  
fied by accidents ; and the same numerical quantity,  
by variations of texture, may constitute successively  
all kinds of body. *Bentley.*

Who are they that set the first and second articles  
at variance with each other, when for fourteen cen-  
turies, and more, they have agreed most amicably  
together ? *Waterland.*

That each from other differs, first confess ;  
Next, that he varies from himself no less. *Pope.*

Ladies like variegated tulips show ;  
'Tis to the changes half the charms we owe :

Such happy spots the nice admirers take,  
Fine by defect, and delicately weak. *Id.*

Will the falcon, stooping from above,  
Smit with her varying plumage, spare the dove ?

Admires the jay the insect's gilded wings ?  
Or hears the hawk when Philomela sings ? *Id.*

If the learned would not sometimes submit to the  
ignorant, the old to the weaknesses of the young,  
there would be nothing but everlasting variance in the  
world. *Swift.*

The rules of grammar, and useful examples of the  
variation of words, and the peculiar form of speech,  
are often appointed to be repeated.

*Watts on the Mind.*

Many bleed,  
By shameful variance betwixt man and man.

*Thomson.*

He now only wants more time to do that variety of  
good which his soul thirsts after. *Law.*

Censurers subject themselves to the charge of  
variableness in judgment. *Clarissa.*

VASARI (George), painter and architect,  
born at Arezzo in 1514. He studied under Del  
Sarto and Michael Angelo, and wrote the Lives  
of celebrated Painters, Sculptors, and Architects,  
3 vols. 4to. He died at Florence, 1578. The  
Treatise on Painting, Florence, 1619, 4to., was  
written by a nephew of his.

VASCONES, an ancient people of Spain, on  
the Pyrennees.

VASCULAR, adj. Lat. *vasculum*. Consist-  
ing of vessels ; full of vessels.

Nutrition of the solids is performed by the circu-  
lating liquid in the smallest vascular solids.

*Arbuthnot on Aliments.*

VASE, n. s. Fr. *vase* ; Lat. *vasa*. A vessel ;  
generally a vessel rather for show than use.

The toilet stands unveiled,  
Each silver vase in mystick order laid. *Pope.*

VASE, a term frequently used for ancient ves-  
sels dug from under ground, or otherwise found  
and preserved in the cabinets of the curious. In  
architecture, the appellation vase is also given to



those ornaments placed on corniches, fochles, or pedestals, representing the vessels of the ancients, particularly those used in sacrifice, as incense pots, flower-pots, &c.

VASSAL, *n. s.* } Fr. *vassal*; Ital. *vassallo*.

VASSALAGE. } One who holds of a superior lord; a dependant; servant; slave: the state of a vassal.

Such as they thought fit for labour they received as *vassals*; but imparted not the benefit of laws, but every one made his will a law unto his own *vassal*.

*Spenser's State of Ireland.*

He renounced the *vassalage*

Of Rome again.

*Spenser.*

She cannot content the lord with performance of his discipline, that hath at her side a *vassal*, whom Satan hath made his vicegerent, to cross whatsoever the faithful should do.

*Hooker.*

I am his fortune's *vassal*, and I send him The greatness he has got.

*Shakespeare. Antony and Cleopatra.*

All my powers do their bestowing lose,  
Like *vassalage* at unawares encountering  
The eye of majesty.

*Id. Troilus and Cressida.*

The mind hath not reason to remember that passions ought to be her *vassals*, not her masters.

*Raleigh.*

The common people were free subjects to the king, not slaves and *vassals* to their pretended lords.

*Davies.*

Let us not then pursue,  
By force impossible, by leave obtained  
Unacceptable, though in heaven our state  
Of splendid *vassalage*.

*Milton's Paradise Lost.*

*Cursed vassalage,*

First idolized till love's hot fire be o'er,  
Then slaves to those who courted us before.

*Dryden.*

As all his *vassals* eagerly desired;  
With mind averse, he rather underwent  
His people's will, than gave his own consent. *Id.*  
The *vassals* are invited to bring in their complaints to the viceroy, who imprisons and chastises their masters.

*Addison.*

Every petty prince, *vassal* to the emperor, can coin what money he pleaseth. *Swift's View of Ireland.*

VASSAL, in our ancient customs, signified a tenant or feudatory person, who vowed fidelity and homage to a lord, on account of some land, &c., held of him in fee; also a slave or servant, and especially a domestic of a prince. See FEUDAL SYSTEM.

VAST, *adj. & n. s.*

Fr. *vaste*; Lat. *vastus*.

VASTATION, *n. s.*

Large; great; wild: an

VASTIDITY,

empty waste: vastation and

VASTLY, *adv.*

vastidity (both unusual)

VASTNESS, *n. s.*

signify waste; depopulation

VASTY, *adj.*

wildness: vastly and

vastness correspond with the adjective *vast*: vasty is enormously great; immense.

Perpetual durance,

Through all the world's *vastidity*. *Shakespeare.*

I can call spirits from the *vasty* deep. *Id.*

They shook hands, as over a *vast*; and embraced, as from the ends of opposed winds. *Id.*

The vicious language is *vast* and gaping, swelling and irregular; when it contends to be high, full of rock, mountain, and pointedness. *Ben Jonson.*

So bore the ship aloft her fiery bound,  
About whom rush'd the billows, blacke and *vaste*.

*Chapman.*

What the parliament meant to attempt with those *vast* numbers of men, every day levied. *Clarendon.*

This wild-fire made the saddest *vastations*, in the many fatal outrages which these eager contentions occasion.

*Decay of Piety.*

They may, and do, *vastly* differ in their manners, institutions, customs; but yet all of them agree in having some deity to worship. *Wilkins.*

Through the *vast* of heaven it sounded. *Milton.*

Behemoth, biggest born of earth, upheaved

His *vastness*. *Milton's Paradise Lost.*

She by the rocks compelled to stay behind,

Is by the *vastness* of her bulk confined. *Waller.*

Holland's resolving upon its own defence, without our share in the war, would leave us to enjoy the trade of the world, and thereby grow *vastly* both in strength and treasures. *Temple.*

Ariosto observed not moderation in the *vastness* of his draught. *Dryden.*

It is *vastly* the concern of government and of themselves too, whether they be morally good or bad. *South.*

Hence we may discover the cause of the *vastness* of the ocean. *Bentley.*

The watery *vast*,

Secure of storms, your royal brother past. *Pope.*

That is an ample and capacious mind, which takes in *vast* and sublime ideas without pain. *Watts.*

His open stores,

Though *vast*, were little to his ample heart.

*Thomson.*

VAT, *n. s.* Sax. *fat*; Belg. *vat*. A vessel in which liquors are kept in the immature state.

Plumpy Bacchus with pink eyes,

In thy *vats* our cares be drowned. *Shakespeare.*

Let him produce his *vats* and tubs in opposition to heaps of arms and standards. *Addison.*

Wouldst thou thy *vats* with generous juice should froth,

Respect thy orchards.

*Philips.*

VATABLES (Francis), professor of Hebrew in the Royal college of Paris, was born in Picardy. His knowledge of Hebrew astonished the most learned Jews. He wrote notes on the Bible, which were condemned by the faculty of theology, at Paris, yet are highly esteemed. The last edition was in 2 vols. fol. 1729. He died in 1547.

VATICAN, a magnificent palace of the pope, in Rome, which consists of several thousand rooms; but the parts of it most admired are the grand staircase, the pope's apartment, and especially the library, which is one of the richest in the world, both in printed books and manuscripts.

VATICANUS, the hill at Rome on which the palace of the pope stands.

VATICIDE, *n. s.* Lat. *vates* and *cado*. A murderer of poets.

The caittif *vaticide* conceived a prayer. *Pope.*

VATICINATE, *v. n.* Lat. *vaticinor*. To prophesy; to practise prediction.

The most admired of all prophane prophets, whose predictions have been so much cried up, did *vaticinate* here. *Hovel.*

VATTEL (N.), a writer on the law of nations, was born at Neufchatel, and died in 1770, at Brussels.

VAVASOUR, *n. s.* Fr. *vavasseur*. One who himself holding of a superior lord has others holding under him.

Names have been taken of civil honours, as king, knight, valvasor, or *varasor*, squire. *Cumden.*

**VAVASSOR** (Francis), a Jesuit, was born in 1605. He taught rhetoric and theology at Paris, where he died in 1681. He wrote two Latin poems on the Burlesque, and epigrams, and a life of Jesus.

**VAUBAN** (Sebastian le Prestre), lord of, a celebrated engineer. He displayed his knowledge of fortification in the course of many sieges, and his services were rewarded with the first military honors. He was made governor of Lisle in 1668, commissary general of the fortifications of France in 1678, governor of the maritime parts of Flanders in 1689, and a marshal of France in 1703. He died in 1707. He wrote, 1. *The French Engineer*, 8vo. 2. *Treatise on the Attack and Defence of places*, 8vo. 3. *Essays on Fortification*, 12mo. 4. *Political Testament of M. Vauban*.

**VAUCLUSE**, a department of France, in Provence, bounded on the south by the department of the Mouths of the Rhone. Its extent is about 1400 square miles; its population about 210,000. The surface in the north-east is traversed by branches of the Alps, some of which, such as *Monts Ventoux*, *Lure*, *Leberon*, *Bluys*, &c., rise to a considerable elevation: the west part consists of a broad valley extending along the Rhone. It is also watered by the *Durance*. The soil is rich in the low grounds; in the mountains stony and unproductive. The climate is suitable to the culture of silk, olives, and vines, maize and wheat. The manufactures consist of silk, and, on a small scale, linen, leather, and paper. The department belongs to the diocese of *Avignon*, and to the jurisdiction of the royal court of *Nismes*. It is divided into four *arrondissements*, viz. *Avignon* the capital, *Orange*, *Carpentras*, and *Apt*.

**VAUCLUSE**, the remarkable fountain in the south-east of France, which gives name to the above department, issues from an immense cavern, overhung and surrounded by huge rocks and mountains, and is remarkable chiefly for the quantity of water discharged. This forms at once a river, the *Sorgues*, capable of driving mills and bearing boats. In summer, and during dry seasons, the pure and limpid water issues tranquilly from the cavern by subterranean channels; but in spring, and after heavy falls of rain, they overflow the basin and precipitate themselves among the rocks in a number of beautiful cascades. This fountain is celebrated for the loves of *Petrarch* and *Laura*, whose residence was in the vicinity.

**VAUD**, *PAYS DE*, a canton in the west of Switzerland, bounded on the west by France, and on the south by the lake of Geneva; on the north it includes part of the lake of *Neuchatel*. Its superficial extent is nearly 1500 square miles, and its population about 150,000. It is in general less mountainous than other parts of Switzerland, consisting of beautiful valleys and plains, intersected by small hills, appropriated to the culture of corn and vines. The climate, comparatively mild in the west of the canton, becomes colder towards the east: part of the arable ground is applied to the culture of hemp and flax, other districts to pasturage, plantations, &c. The mineral products are iron, salt, coal, lead,

and gypsum. The chief exports wine, cattle, leather, and cheese. The inhabitants are strict Calvinists, and remarkable for the careful education of their youth. Geneva is in its vicinity; and its chief town, *Lausanne*, is a seminary for theological study. At another of its towns, *Yverdon*, is the well known institution of *Pestalozzi*. The current language is French. After the decline of the Roman empire the *Pays de Vaud* formed a part of the kingdom of Burgundy, and was afterwards annexed to Savoy. It was conquered from the last by the Swiss, and was annexed to that country as a dependency of the canton of *Berne*; but was acknowledged as a separate canton in 1803 and 1814.

**VAUDOIS**, **VALDENSES**, or **WALDENSES**, in ecclesiastical history, a name given to a sect of reformers. The origin of this famous sect, according to *Mosheim*, was as follows:—Peter, an opulent merchant of Lyons, surnamed *Valdensis*, or *Valdisius*, from *Vaux* or *Waldrum*, a town in the marquise of Lyons, being struck with the glaring contradiction between the doctrines of the pontiffs and the truths of the Gospel, abandoned his mercantile vocation, distributed his riches among the poor (whence the Waldenses were called poor men of Lyons), and, forming an association with other pious men who had adopted his sentiments and his turn of devotion, he began in the year 1180 to assume the quality of a public teacher. Soon after the archbishop of Lyons, and others, vigorously opposed him, but without success; for the number of his followers daily increased. They formed religious assemblies, first in France, and afterwards in Lombardy, whence they propagated their sect throughout the other provinces of Europe with incredible rapidity, and with such invincible fortitude that the most cruel inventions of merciless persecution could not damp their zeal, nor entirely ruin their cause. They did not attempt to introduce new doctrines into the church. They only wanted to reduce the form of ecclesiastical government, and the manners both of the clergy and people, to that amiable simplicity and primitive sanctity that characterised the apostolic ages. They denied the supremacy of the Roman pontiff, and maintained that the rulers and ministers of the church were obliged, by their vocation, to imitate the poverty of the apostles. They considered every Christian as, in a certain measure, qualified and authorised to instruct, exhort, and confirm the brethren in their Christian course, and demanded the restoration of the ancient penitential discipline of the church, i. e. the expiation of transgressions by prayer, fasting, and alms, which the new-invented doctrine of indulgences had almost totally abolished. They at the same time affirmed that every pious Christian was qualified and entitled to prescribe to the penitent the kind or degree of satisfaction or expiation that their transgressions required; that confession made to priests was by no means necessary; and that the power of delivering sinners from the guilt and punishment of their offences belonged to God alone. They looked upon the prayers and other ceremonies that were instituted in behalf of the dead as vain, useless, and absurd, and denied the existence of departed



souls in an intermediate state of purification; affirming that they were, immediately upon their separation from their body, received into heaven, or thrust down to hell. Their rules of practice were extremely austere. They prohibited all wars, and suits of law, and all attempts towards the acquisition of wealth, the inflicting of capital punishments, self-defence against unjust violence, and oaths of all kinds. During the greatest part of the seventeenth century, those of them who lived in the valleys of Piedmont, and who had embraced the doctrine, discipline, and worship of the church of Geneva, were oppressed and persecuted, in the most barbarous and inhuman manner, by the ministers of Rome. This persecution was carried on with peculiar marks of rage and enormity in the years 1655, 1656, and 1696, and seemed to portend nothing less than the total extinction of that unhappy nation. See WALDENSES.

VAUGELAS (Claude Favre), lord de, was born at Bourg, in Bresse, in 1585. He was Chamberlain to the duke of Orleans, and member of the French academy. He contributed to the *Encyclopédie*; and wrote *Remarks on the French language*, and a translation of Quintus Curtius. He died poor in 1650.

VAUGHAN (Sir John), chief justice of the common pleas under Charles II. He died in 1674, and his reports were published posthumously.

VAULT, *n. s., v. a., & v. n.* } Fr. *voulte*;  
VAULT'AGE, *n. s.* } Ital. *volta*; low  
VAULT'ED, *adj.* } Lat. *voluta*. A  
VAULT'Y. } continued arch;  
cellar; cave; burying-place: to cover with such an arch; to leap; jump: vaultage is cellarage of the above description: vaulted, arched continuously: vaulty, arched; concave.

The sileat vaults of death, unknown to light,  
And hell itself, lie naked to his sight. Sandys.

O, you are men of stone,  
Had I your tongues and eyes, I'd use them so  
That heaven's vault should crack.

Shakspeare. *King Lear*.

Hath nature given them eyes  
To see this vaulted arch, and the rich cope  
Of sea and land, which can distinguish 'twixt  
The fiery orbs above, and the twinned stones  
Upon the humbled beach? Id. *Cymbeline*.

Vaulting ambition, which o'erleaps itself,  
And falls on the other. Id. *Macbeth*.

If I could win a lady by vaulting into my saddle  
with my armour on, I should quickly leap into a wife.  
Shakspeare.

He'll call you to so hot an answer for it,  
That caves and womby vaultages of France  
Shall chide your trespass, and return your mock  
In second accent to his ordinance. Id. *Henry V*.

I will kiss thy detestable bones,  
And put my eye-balls in thy vaulty brows,  
And ring these fingers with thy household worms.  
Shakspeare.

Over-head the dismal hiss  
Of fiery darts in flaming volleys flew;  
And flying vaulted either host with fire. Milton.  
Leaning on his lance, he vaulted on a tree. Dryden.

The word signifies an orb or sphere. And this shews us both the form of the Mosaic abyss, which was included within this vault; and the form of the

habitable earth, which was the outward surface of this vault, or the cover of the abyss.

Burnet's *Theory of the Earth*.

Lucan vaulted upon Pegasus with all the heat and intrepidity of youth. Addison.

If a man should leap a garret, or vault down the monument, would he leave the memory of a hero behind him? Collier on Duelling.

Restore the lock! she cries, and all around  
Restore the lock! the vaulted roofs rebound. Pope.

Whether your fruitful fancy lies  
To banish rats that haunt our vaults. Swift.

VAUNT, *v. a., v. n., & n. s.* } Fr. *vanter*.  
VAUNTER, *n. s.* } To boast; dis-  
VAUNT'FUL, *adj.* } play with os-  
VAUNT'INGLY, *adv.* } tentation: play  
the braggart: a vain boast; ostentation: the derivatives correspond.

The illusions of magick were put down, and their vaunting in wisdom reproved with disgrace.

Wisdom xvii. 7.

Not any damsel which her vaunteth most  
In skilful knitting of soft silken twine. Spenser.

Sir John Perrot bent his course not to that point,  
but rather quite contrary, in scorn, and in vain vaunt  
of his own counsels. Id.

Some feign  
To menage steeds, as did this vaunter; but in vain. Id.

You say, you are a better soldier;  
Let it appear so; make your vaunting true. Shakspeare.

I heard thee say, and vauntingly thou spak'st it.  
That thou wert cause of noble Gloster's death. Id.  
So spake the apostate angel, though in pain;  
Vaunting aloud, but racked with deep despair. Milton.

My vanquisher, spoiled of his vaulted spoil. Id.  
Tongue-valiant hero! vaunter of thy might!  
In threats the foremost, but the last in fight. Dryden.

Pride, which prompts a man to vaunt and over-  
value what he is, does incline him to disvalue what  
he has. Government of the Tongue.

Such vaunts as his, who can with patience read,  
Who thus describes his hero when he's dead? Granville.

VAUNT, *n. s.* } Fr. *avant*, *avantur*. The  
VAUNT'MURE. } first part: false wall; a  
work raised before the main wall.

Our play  
Leaps o'er the vault and firstlings. Shakspeare.  
With another engine, named the warwolve, he  
pierced with one stone, and cut as even as a thread,  
two vauntmures. Camden's Remains.

This warlike captain daily attempting the *vauntmure*,  
in the end by force obtained the same; and, so pos-  
sessed of the place, desperately kept it till greater  
help came running in; who, with wonderful expedi-  
tion, clapt up a strong covering betwixt the wall and  
the *vauntmure*. Knolles.

VAWARD, *n. s.* Van and ward. Forepart.  
Obsolete.

He desired nothing more than to have confirmed his  
authority in the minds of the vulgar, by the present  
and ready attendance of the wayvod. Knolles's History of the Turks.

Since we have the vaward of the day,  
My love shall hear the musick of my bounds. Shakspeare.

Marcus  
Their bands i' th' vaward are the Antians  
Of their best trust. Id. *Coriolanus*.

**UBAY**, a considerable river of Peru, has its source in a lake formed by the river Parapiti, or Apere, in the territory of Isoso, and runs to the north and N. N. W. more than seventy leagues. It crosses the country of the Chiquitos Indians, and the province of Los Moxos in Quito, which it enters much increased by the waters it has received from that of Itenes, opposite the entrenchment of Santa Rosa. This river is also called Magdalena San Miguel, and formerly Los Chiquitos. Its mouth is in lat.  $11^{\circ} 57' S.$

**UBEDA**, a large inland town of Spain, in Andalusia, in the province of Jaen. All kinds of fruit, grapes, olives, and, above all, figs of excellent quality, and a good breed of horses, are found in the vicinity. The population amounts to 16,000, of whom part weave common woollen stuffs; but manufactures do not thrive in general in Andalusia, and Ubeda has the disadvantage of standing on no great road. Like most towns in Spain it contains a number of religious houses, having eleven churches, great and small, several monasteries, and a large hospital. Thirty miles north-east of Jaen, and fifty-eight N. N. E. of Granada.

**UBICATION**, *n. s.* } Lat. *ubi*. Local re-  
UBIETY. } lation; whereness. A  
scholastic term.

Relations, *ubications*, duration, the vulgar philosophy admits to be something; and yet to enquire in what place they are were gross. *Glanville.*

**UBIQUITARIANS**, formed from *ubique*, 'every where,' in ecclesiastical history, a sect of Lutherans which rose and spread itself in Germany; and whose distinguishing doctrine was, that the body of Jesus Christ is every where, or in every place. Brentius, one of the earliest reformers, is said to have first broached this error, in 1560.

**UBIQUITY**, *n. s.* } Latin *ubique*.

**UBIQUITARY**, *adj.* & *n. s.* } Omnipresence;  
existence at the same time in all places: existing every where: one who exists every where.

In the one there is attributed to God death, whereof divine nature is not capable; in the other, *ubiquity* unto man, which human nature admitteth not. *Hooker.*

Pem she hight,

A solem wight,

As you should meet,

In any street,

In that *ubiquity*.

*Ben Jonson.*

To conclude, either Aquinas is false, or the Papists *ubiquitaries*.

*Hall.*

For wealth and an *ubiquitary* commerce, none can exceed her.

*Howel.*

Could they think that to be infinite and immense, the *ubiquity* of which they could thrust into a corner of their closet?

*South.*

**UCAYALE**, a large river of South America, enters the Amazons in lat.  $4^{\circ} 25' S.$  Near its supposed sources this noble stream is called the Apurimac, and rises to the south of the mountains of Cailloma, between lat.  $16^{\circ}$  and  $17^{\circ} S.$ , near the city of Arequipa, where it is joined by the Monigote, or Panguana, and is so deep that on entering the province of Canes a rope bridge becomes necessary. Eight miles below this bridge it passes through the Andes, amid awful precipices, and is joined by the Pampas or Char-

cas, in lat.  $13^{\circ} 10' S.$ , from the west. The Vilcamayo, nearly equal in size to the Apurimac, here falls into it at lat.  $12^{\circ} 15' S.$ , and the Rio Jauja, of Mantaro, in lat.  $12^{\circ} 6' S.$  At the junction of this stream with the Apurimac the current which had before run from north-west changes to the north-east. The Perene at  $11^{\circ} 13'$ , and the Ynambari, or Paucartambo, at  $10^{\circ} 45'$ , augment its waters; after which, from hence to lat.  $8^{\circ} 26' S.$ , it receives forty large streams, but none so considerable as the Beni, whose sources lie in the province of Sicasica, in lat.  $19^{\circ} S.$  At its confluence with this river the Apurimac is called the Grand Para, and is two miles in width; at lat.  $8^{\circ} 26' S.$  the Pachitea throws in its waters. Northward of this the Piachiz joins it, and here the river changes from north to north-east. At lat.  $7^{\circ} 35' S.$  the Aguaytra falls into it, and in lat.  $7^{\circ} S.$  the Manoa, or Cuxniabatay, the Sauriacu at lat.  $6^{\circ} 45' S.$ , and the Tapichi at lat.  $5^{\circ} S.$  The stream has now borne for some time the name of Ucayale, and proceeding under this appellation, with an immense volume, it receives, at lat.  $4^{\circ} 55' S.$ , the Tunguragua, Lauricocha, or False Maranon. The Ucayale, or True Maranon, is navigable at all seasons; it was explored in 1794 by father Girval, who ascended it from St. Regis to the river Pachitea, and found its current gentle, abounding with fish, and its banks crowned with superb forests stored with wild animals. The native tribes on its shores were generally of a pacific nature; and in the course of 300 leagues he found 132 islands. From the confluence of the Ucayale and Tunguragua the river decidedly receives the name of AMAZONS, or MARAXON, which see.

**UD'DER**, *n. s.* Sax. *uðer*; Belg. *uder*; Lat. *uber*. The breast or dugs of a cow, or other large animal.

A lioness, with *udders* all drawn dry,

Lay couching head on ground.

*Shakspeare.*

Since the cow

Produced an ampler store of milk; the she-goat,

Not without pain, dragged her distended *udder*.

*Prior.*

Marian soft could stroke the *uddered* cow. *Gay.*

**UDINA**, a delegation or district of Austrian Italy, in the government of Venice, comprising the former Venetian Friuli, with the exception of the eastern part and a portion of sea coast included in the government of Trieste. It has a superficial extent of 2900 square miles, and a population of nearly 270,000. The capital, Udina, is situated in the middle of an extensive plain, on the banks of the Lisonzo, and the canal of Roja. It is about nineteen miles from the sea, and covers a considerable space of ground, having a circuit of four miles; but its population is not in proportion, hardly exceeding 17,000. It contains a cathedral, with several churches and convents.

**VEAL**, *n. s.* Old Fr. *veel*, a calf, *veeler*, *vesler*, to bring forth a calf; Lat. *vitellus*. The flesh of a calf killed for the table.

Wouldst thou with mighty beef augment thy meal,  
Seek Leadenhall; St. James's sends thee *veal*. *Gay.*

**VECTION**, *n. s.* } Lat. *vectio*, *vectito*, *vec-*  
**VECTITATION**, } *tura*. The act of carrying,  
**VECTURE**. } or being carried: carriage.



Three things one nation selleth unto another; the commodity as nature yieldeth it, the manufacture, and the *veeture* or carriage. *Bacon's Essays.*

Enervated lords are softly lolling in their chariots; a species of *vectitation* seldom used amongst the ancients. *Arbutnot.*

VEDAS, the sacred books of the Hindoos, believed to be revealed by God, and called immortal. They are considered as the fountain of all knowledge, human and divine, and have been said to be four in number. The *rigveda* consists of five sections; the *yajurveda* of eighty-five; the *samaveda* of 1000; and the *at' harvaveda* of nine; with 1100 *sac'ha's*, or branches, in various divisions and subdivisions. The *vedas* in truth are infinite, but have been long reduced to this number and order: the principal part of them is that which explains the duties of man in a methodical arrangement; and in the fourth is a system of divine ordinances. From these are reduced the four *upavedas*, the first of which was delivered to mankind by Brahma, Indra, Dhanwantari, and five other deities; and comprises the theory of disorders and medicines, with the practical methods of curing diseases. The second consists of music, invented for the purpose of raising the mind, by devotion, to the felicity of the divine nature; the third treats of the fabrication and use of arms; and the fourth of sixty-four mechanical arts.

VEDETTE, in war, a sentinel on horseback, with his horse's head towards the place whence any danger is to be feared, and his carbine advanced, with the butt end against his right thigh. When the enemy has encamped, there are *vedettes* posted at all the avenues, and on all the rising grounds, to watch for its security.

VEER, *v. n. & v. a.* Fr. *virer*. To turn about; turn; change; vary; let out sail.

I see the haven nigh at hand,  
To which I mean my weary course to bend;  
*Veer* the main sheet, and bear up with the land. *Spenser.*

As it is a great point of art, when our matter requires it, to enlarge and *veer* out all sail; so, to take it in and contract it, is of no less praise when the argument doth ask it. *Ben Jonson.*

Nigh river's mouth, where wind  
*Veers* oft, as oft he steers and shifts her sail. *Milton.*

If a wild uncertainty prevail,  
And turn your *veering* heart with every gale;  
You lose the fruit of all your former care,  
For the sad prospect of a just despair. *Roscommon.*

A-head the master pilot steers,  
And, as he leads, the following navy *veers*. *Dryden.*

It is a double misfortune to a nation given to change, when they have a sovereign that is prone to fall in with all the turns and *veerings* of the people. *Adison's Freeholder.*

The wind *veered* about to north-west. *Derham.*

To *VEER* and *HULL*, to pull a rope tight, by drawing it in and slackening it alternately, till the body to which it is applied acquires an additional motion, like the increased vibrations of a pendulum, so that the rope is straitened to a greater tension with more facility and despatch. This method is particularly used in hauling the bowlines. The wind is said to *veer* and *haul* when it alters its direction, and becomes more or

less fair. Thus it is said to *veer* aft and to *haul* forward.

VEERING, or WEARING, the operation by which a ship, in changing her course from one board to the other, turns her stern to windward. Hence it is used in opposition to tacking, wherein the head is turned to the wind, and the stern to leeward. See SEAMANSHIP.

VEGA (Lopes Felix de), a Spanish poet, was born at Madrid of a noble family, in 1562. He became secretary to the duke of Alva, and afterwards served on board the armada, destined for the invasion of England. After having lost two wives, he entered into orders. Pope Urban VII. created him D. D., and bestowed on him the cross of the order of Malta, and a place in the apostolic exchequer. He died in 1635. His principal performances are comedies, which were acted with great success, and procured him a considerable fortune. His invention was so fertile that he sometimes wrote a comedy in a single day. He wrote several poems; - all his works make twenty-five volumes.

|                                    |   |
|------------------------------------|---|
| VEGETATE, <i>v. n.</i>             | } Lat. <i>vegeto</i> . To grow as plants; shoot out; grow without sensation: <i>vegetability</i> is <i>vegetable</i> nature; growth like a vegetable (which has been defined as that which has growth without sensation); a plant: as an adjective, belonging to or resembling a plant: <i>vegetation</i> is <i>vegetable</i> growth: <i>vegetative</i> , having the growth of vegetables, or power to produce growth in plants: <i>vegete</i> is an obsolete word for vigorous; active: <i>vegetive</i> for <i>vegetable</i> . |
| VEGETABILITY, <i>n. s.</i>         |   |
| VEGETABLE, <i>n. s. &amp; adj.</i> |   |
| VEGETATION, <i>n. s.</i>           |   |
| VEGETATIVE, <i>adj.</i>            |   |
| VEGETE,                            |   |
| VEGETIVE, <i>adj. &amp; n. s.</i>  |   |

Nor rent off, but cut off ripe bean with a knife,  
For hindering stalke of hir *vegetive* life. *Tusser.*

Hence *vegetives* receive their fragrant birth,  
And clothe the naked bosom of the earth. *Sandys.*

Plants, though beneath the excellency of creatures endued with sense, yet exceed them in the faculty of *vegetation* and of fertility. *Hooker.*

Creatures *vegetative* and growing have their seeds in themselves. *Raleigh's History of the World.*

The nature of plants doth consist in having a *vegetative* soul, by which they receive nourishment and growth, and are enabled to multiply their kind. *Wilkins.*

Amidst them stood the tree of life,  
High eminent, blooming ambrosial fruit  
Of *vegetable* gold. *Milton's Paradise Lost.*

The coagulating spirits of salts, and lapidifical juice of the sea, entering the parts of the plant, overcome its *vegetability*, and convert it unto a lapideous substance. *Browne.*

The tree still panted in the' unfinished part,  
Not wholly *vegetive*; and heaved her heart. *Dryden.*

In *vegetables* it is the shape, and in bodies not propagated by seed it is the colour, we most fix on. *Locke.*

These pulsations I attribute to a plastick nature, or vital principle, as the *vegetation* of plants must also be. *Rov.*

The soul was *vegete*, quick, and lively; full of the youthfulness and spriteliness of youth. *South.*

The *vegetable* world, each plant and tree,  
From the fair cedar on the craggy brow  
To creeping moss. *Prior*

The exterior surface consisted of a terrestrial matter proper for the nourishment of plants, being little entangled with mere mineral matter, that was unfit for vegetation. *Woodward.*

That *vegetative* terrestrial hath been ever the standing fund out of which is derived the matter of all animal and vegetable bodies. *Id. Natural History.*

Let brutes, and vegetables that cannot think, So far as drought and nature urges, drink. *Wall.*

The faculties in age must be less *vegetate* and nimble than in youth. *Wallis.*

See dying *vegetables* life sustain : See life dissolving *vegetate* again. *Pope.*

The sun, deep-darting to the dark retreat Of *vegetation*, sets the steaming power At large. *Thomson's Spring.*

Other animated substances are called *vegetables*, which have within themselves the principle of another sort of life and growth, and of various productions of leaves, flowers, and fruit, such as we see in plants, herbs, trees. *Watts.*

**VEGETABLES.** The principles of which vegetables are composed, if we pursue their analysis chemically as far as our limits will allow, are chiefly, says Dr. Ure, carbon, hydrogen, and oxygen. Nitrogen is a constituent principle of several, but for the most part in small quantity. Potash, soda, lime, magnesia, silex, alumina, sulphur, phosphorus, iron, manganese, and muriatic acid, have likewise been reckoned in the number; but some of these occur only occasionally, and chiefly in very small quantities; and are scarcely more entitled to be considered as belonging to them than gold, or some other substances, that have been occasionally procured from their decomposition.

The following are the principal products of vegetation :—

1. *Sugar.*—Crystallises. Soluble in water and alcohol. Taste sweet. Soluble in nitric acid, and yields oxalic acid.

2. *Sarcocol.*—Does not crystallise. Soluble in water and alcohol. Taste bitter sweet. Soluble in nitric acid, and yields oxalic acid.

3. *Asparagin.*—Crystallises. Taste cooling and nauseous. Soluble in hot water. Insoluble in alcohol. Soluble in nitric acid, and converted into bitter principle and artificial tannin.

4. *Gum.*—Does not crystallise. Taste insipid. Soluble in water, and forms mucilage. Insoluble in alcohol. Precipitated by silicated potash. Soluble in nitric acid, and forms mucous and oxalic acids.

5. *Ulm.*—Does not crystallise. Taste insipid. Soluble in water, and does not form mucilage. Precipitated by nitric and oxymuriatic acids in the state of resin. Insoluble in alcohol.

6. *Inulin.*—A white powder. Insoluble in cold water. Soluble in boiling water, but precipitates unaltered after the solution cools. Insoluble in alcohol. Soluble in nitric acid, and yields oxalic acid.

7. *Starch.*—A white powder. Taste insipid. Insoluble in cold water. Soluble in hot water; opaque and glutinous. Precipitated by an infusion of nutgalls; precipitate redissolved by a heat of 120°. Insoluble in alcohol. Soluble in dilute nitric acid, and precipitated by alcohol. With nitric acid yields oxalic acid and a waxy matter.

8. *Indigo.*—A blue powder. Taste insipid. Insoluble in water, alcohol, ether. Soluble in sulphuric acid. Soluble in nitric acid, and converted into bitter principle and artificial tannin.

9. *Gluten.*—Forms a ductile elastic mass with water. Partially soluble in water; precipitated by infusion of nutgalls and oxygenised muriatic acid. Soluble in acetic acid and muriatic acid. Insoluble in alcohol. By fermentation becomes viscid and adhesive, and then assumes the properties of cheese. Soluble in nitric acid, and yields oxalic acid.

10. *Albumen.*—Soluble in cold water. Coagulated by heat, and becomes insoluble. Insoluble in alcohol. Precipitated by infusion of nutgalls. Soluble in nitric acid. Soon putrefies.

11. *Fibrin.*—Tasteless. Insoluble in water and alcohol. Soluble in diluted alkalies, and in nitric acid. Soon putrefies.

12. *Gelatin.*—Insipid. Soluble in water. Does not coagulate when heated. Precipitated by infusion of galls.

13. *Bitter principle.*—Color yellow or brown. Taste bitter. Equally soluble in water and alcohol. Soluble in nitric acid. Precipitated by nitrate of silver.

14. *Extractive.*—Soluble in water and alcohol. Insoluble in ether. Precipitated by oxygenised muriatic acid, muriate of tin, and muriate of alumina; but not by gelatin. Dyes fawn color.

15. *Tannin.*—Taste astringent. Soluble in water and in alcohol of 0·810. Precipitated by gelatin, muriate of alumina, and muriate of tin.

16. *Fixed oils.*—No smell. Insoluble in water and alcohol. Forms soaps with alkalies. Coagulated by earthy and metallic salts.

17. *Wax.*—Insoluble in water. Soluble in alcohol, ether, and oils. Forms soap with alkalies. Fusible.

18. *Volatile oil.*—Strong smell. Insoluble in water. Soluble in alcohol. Liquid. Volatile. Oily. By nitric acid inflamed, and converted into resinous substances.

19. *Camphor.*—Strong odor. Crystallises. Very little soluble in water. Soluble in alcohol, oils, acids. Insoluble in alkalies. Burns with a clear flame, and volatilises before melting.

20. *Birdlime.*—Viscid. Taste insipid. Insoluble in water. Partially soluble in alcohol. Very soluble in ether. Solution green.

21. *Resins.*—Solid. Melt when heated. Insoluble in water. Soluble in alcohol, ether, and alkalies. Soluble in acetic acid. By nitric acid converted into artificial tannin.

22. *Guaiacum.*—Possesses the character of resins, but dissolves in nitric acid, and yields oxalic acid and no tannin.

23. *Balsams.*—Possess the characters of the resins, but have a strong smell; when heated benzoic acid sublimes. It sublimes also when they are dissolved in sulphuric acid. By nitric acid converted into artificial tannin.

24. *Caoutchouc.* Very elastic. Insoluble in water and alcohol. When steeped in ether, reduced to a pulp, which adheres to every thing. Fusible and remains liquid. Very combustible.

25. *Gum resins.* Form milky solutions with water, transparent with alcohol. Soluble in



alkalis. With nitric acid converted into tannin. Strong smell. Brittle, opaque, infusible.

26. *Cotton*.—Composed of fibres. Tasteless. Very combustible. Insoluble in water, alcohol, and ether. Soluble in alkalies. Yields oxalic acid to nitric acid.

27. *Suber*.—Burns bright, and swells. Converted by nitric acid into suberic acid and wax. Partially soluble in water and alcohol.

28. *Wood*.—Composed of fibres. Tasteless. Insoluble in water and alcohol. Soluble in weak alkaline lixivium. Precipitated by acids. Leaves much charcoal when distilled in a red heat. Soluble in nitric acid, and yields oxalic acid. To the preceding we may add, emetin, fungin, hematin, nicotin, pollenin; the new vegetable alkalies, aconita, atropia, brucia, cicuta, datura, delphia, hyosciamia, morphia, picrotoxia, strychnia, veratria, &c. &c.

VEGETATION, SALINE. Chaptal has given us a good memoir on this subject, in the *Journal de Physique* for October 1788, entitled *Observations on the Influence of the Air and Light upon the Vegetation of Salts*. In the operations in the large way, of his manufactory of medical and chemical products, he often observed that salts, particularly the metallic, vegetated on the side most exposed to the light; and the frequency of the effect induced him to make some direct experiments on the subject. For this purpose he took several capsules of glass, and covered the half of each, as well above as below, with black silk. At the same time, he prepared solutions of almost all the earthy, alkaline, or metallic compound salts in distilled water, at the temperature of the atmosphere. These capsules were placed on tables in a well closed chamber, which had no chimney, and of which the doors and windows were carefully stopped up, in order that the evaporation might not be hastened by any agitation of the air. Reflected light, by which I understand the light from the clouds, was admitted through a small aperture in one of the window-shutters. By this management, as well as the disposition of the capsules, one-half of each of their respective cavities received light from the aperture, and the other was almost perfectly in darkness. The solutions were then carefully poured into the capsules by means of a funnel resting on the middle of the bottom, so that the border of the fluid was neat and uniform, without any irregularity or drop of the fluid falling on the bare surface of the glass.

Upwards of 200 experiments were made, with variations of the principal trials, so as to leave no doubt with regard to the constancy of the results. The most remarkable fact is, that the vegetation took place only on those surfaces which were illuminated. This phenomenon was so striking, in most of the solutions, that in the space of a few days, and frequently even within one single day, the salt was elevated several lines above the liquor upon the enlightened surface, while there did not appear the smallest crust or edge on the dark part. Nothing could be more interesting than to observe this vegetation, projecting frequently more than an inch, and marking the line of distinction between the illuminated and dark parts of the vessel. The sulphates of iron, of

zinc, and other metals, more especially presented this appearance. It was generally observed that the vegetation was strongest toward the most enlightened part.

This phenomenon may be rendered still more interesting, by directing the vegetation at pleasure towards the different parts of the vessel. For this purpose, nothing more is required than to cover the several parts in succession. For the vegetation always takes place in the enlightened parts, and quickly ceases in that which is covered.

When the same solution has stood for several days, the insensible evaporation gradually depresses its surface, and a crust or edge of salt is left in the obscure part. But the salt never rises, or at least very imperfectly, above the liquor, and cannot be compared with the true vegetation. When salts are suffered to vegetate in this manner, the spontaneous evaporation of the fluid affords very few crystals. All the saline matter extends itself on the sides of the vessel.

VEGETIUS (Flavius Renatus), lived in the fourth century. He wrote *Military Institutions* which were printed at Paris in 1762, 12mo., and a *Treatise on the Veterinary art*, which is in the *Rei Rusticæ Scriptores*, Leipsic, 2 vols. 4to.

VEGLIA, an island in the Adriatic, at the north-west corner of the gulf of Quarnero, now belonging to Austria, and included in the government of Trieste, circle of Fiume. Its area is about 210 square miles; its population about 10,000.

VEHEMENT, *adj.* } Fr. *vehement*; Lat.  
VEHEMENTLY, *adv.* } *vehemens*. Violent;  
VEHEMENCE, *n. s.* } forcible; ardent; the  
VEHEMENCY. } adverb and noun substantives corresponding.

Think ye are men; deem it not impossible for you to err: sift impartially your own hearts, whether it be force of reason, or *vehemency* of affection, which hath bred, and still doth feed, these opinions in you.

Hooker.

By their *vehement* instigation,  
In this suit come I to move your grace.

Shakespeare.

Would it apply well to the *vehemence* of your affection that I should win what you would enjoy? *Id.*

A strong imagination hath more force upon light and subtle motions than upon motions *vehement* or ponderous.

Bacon.

The extremity of the condition produced some earnestness and *vehemency* of expression more than ordinary.

Clarendon.

This pure cause would kindle my rapt spirits

To such a flame of sacred *vehemence*,  
That dumb things would be moved to sympathize.

Milton.

I find

In all things else delight indeed; but such  
As, used or not, works in the mind no change,  
Nor *vehement* desire. *Id. Paradise Lost.*

The Christian religion inculcates kindness more *vehemently*, and forbids malice and hatred more strictly, than any religion did before.

Tillotson.

He hurries on his action with variety of events, and ends it in less compass than two months. This *vehemence* of his is most suitable to my temper.

Dryden.

Gold will endure a *vehement* fire for a long time, without any change.

Cruik.

Marcus is over-warm; his fond complaints  
Have so much earnestness and passion in them,  
I leave him with a secret kind of horror,  
And tremble at his vehemence of temper.

*Addison's Cato.*

VEHICLE, *n. s.* Lat. *vehiculum*. That in which any thing is carried.

That the meat descends by one passage, the drink, or moistening *vehicle*, by another, is a popular tenet.

*Browne.*

The gaiety of a diverting word serves as a *vehic*'e to convey the force and meaning of a thing.

*L'Estrange.*

Evil spirits might very properly appear in *vehicles* of flame, to terrify and surprize. *Addison's Guardian.*

VEHICLE, in pharmacy, is any liquid serving to dilute some medicine, in order that it may be administered more commodiously to the patient.

VEIENTES, the inhabitants of Veii.

VEII, in ancient geography, a city of Etruria, long the powerful rival of Rome, distant about twelve miles to the north-west, taken after a siege of ten years by Camillus, six years before the taking of Rome by the Gauls; and thither the Romans, after the burning of their city, had thoughts of removing; but were dissuaded from it by Camillus.—Livy. It remained standing after the Punic war; and a colony was there settled, and its territory assigned to the soldiers. But after that it declined so gradually as not to leave a single trace standing. It was famous for the slaughter of the 300 Fabii on the Cremera.—Ovid. The spot on which it stood lies near Isola, in St. Peter's patrimony.—Holstenius.

VEIL, *v. n. & n. s.* Lat. *velo*. See VAIL. To cover with a veil, and particularly with any thing which conceals the face: the covering used.

To feed his fiery lustful eye,  
He snatched the veil that hung her face before.

*Spenser.*

I will pluck the borrowed veil of modesty from the so seeming Mrs. Page; divulge Page himself for a secure and wilful Acteon. *Shakspeare. Merry Wives.*

Her face was veiled; yet, to my fancied sight,  
Love, sweetness, goodness, in her person shined.

*Milton.*

I descry,

From yonder blazing cloud that veils the hill,  
One of the heavenly host.

*Id.*

The famous painter could allow no place

For private sorrow in a prince's face:

Yet, that his piece might not exceed belief,

He cast a veil upon supposed grief.

*Waller.*

Knock on my heart; for thou hast skill to find

If it sound solid, or be filled with wind;

And through the veil of words thou viewest the naked mind.

*Dryden.*

The ill-natured man exposes those failings in human nature which the other would cast a veil over.

*Addison.*

As veils transparent cover, but not hide,

Such metaphors appear when right applied.

When through the phrase we plainly see the sense,  
Truth with such obvious meanings will dispense.

*Granville.*

She accepts the hero, and the dame  
Wraps in her veil, and frees from sense of shame.

*Pope.*

VEIL. In the Romish churches, in time of Lent, they have veils or curtains over the altar, crucifix, images of saints, &c. A veil of crape is worn on the head by nuns, as a badge of their

profession; the novices wear white veils, but those who have made the vows black ones. See NUN.

VEIN, *n.*

VEIN'ED, *adj.* } Fr. *veine*; Lat. *vena*. A blood vessel. See ANATOMY. The

VEIN'Y. } course of metal in a mine; any hollow tube or cavity; streak; mark; and, metaphorically, the turn or direction of the mind or thoughts; favorable movement; humor: veined and veinny mean furnished with, or full of, veins.

There is a vein for the silver. *Job xxviii. 1.*

When I did first impart my love to you,

I freely told you all the wealth I had

Ran in my veins; I was a gentleman. *Shakspeare.*

Certainly he that hath a satirical vein, as he maketh others afraid of his wit, so he had need to be afraid of others. *Bacon.*

Artizans have not only their growths and perfections, but likewise their veins and times.

*Watson's Architecture.*

Part hidden veins digged up, nor hath this earth

Entrails-unlike, of mineral and stone. *Milton.*

Horror chill

Ran through his veins, and all his joints relaxed.

*Id.*

They among themselves in pleasant vein

Stood scoffing.

*Id. Paradise Lost.*

My usual vein.

*Oldham.*

The vein I have had of running into speculations of this kind, upon a greater scene of trade, has cost me this present service.

*Temple.*

We ought to attempt no more than what is in the compass of our genius, and according to our vein.

*Dryden.*

Speakest thou in earnest or in jesting vein? *Id.*

The currier struck the usurer upon the right vein.

*L'Estrange.*

The root of an old white thorn will make very fine boxes and combs, and many of them are very finely veined.

*Mortimer's Husbandry.*

Let the glass of the prisms be free from veins, and their sides be accurately plane, and well polished, without those numberless waves or curls, which usually arise from sand-holes. *Newton's Opticks.*

It is in men as in soils, where sometimes there is a vein of gold, which the owner knows not of.

*Swift's Thoughts.*

Effulgent, hence the veiny marble shines.

*Thomson.*

VEIN, among miners, is that space which is bounded with woughs, and contains ore, spar, canck, clay, chirt, croil, brownhen, pitcher-chirt, cur (which philosophers call the mother of metals), and sometimes soil of all colors. When it bears ore, it is called a quick vein; when no ore, a dead vein.

VELARIUS, in antiquity, an officer in the court of the Roman emperors, being a kind of usher, whose post was behind the curtain in the prince's apartment, as that of the chancellor's was at the entry of the balustrade; and that of the ostiarii at the door. The velarii had a superior of the same denomination, who commanded them.

VELASQUEZ (Don Diego, de Silva), painter, born at Seville in 1594. Philip IV. appointed him his first painter, and knighted him with a pension. He died at Madrid in 1660.

VELEZ (Michael), a modern Hungarian poet of Csokonakilla, died in 1806. He was the author of an heroi-comic poem, in four books, entitled Dorothea, or the Triumph of the Ladies at



the Carnival, published in 1804. In the preface he treats of the nature of heroic poetry, a branch of literature which had scarcely occupied the attention of any previous Hungarian writer. He also published, in 1805, a collection of songs, which obtained great popularity.

VELEZ, a small city of New Granada, in the province of Tunja, on the river Saarez, at the foot of a ridge of mountains. The streets are so swampy as to be at times impassable; but the temperature, though hot, is rendered moderate by the frequency of the tempests. The city contains a very handsome church, besides two convents and 2500 inhabitants. It is close to a volcano, and has excellent mines of gold, which are, however, not worked. Sixty-eight miles north of Santa Fe, and twenty-five north-west of Tunja.

VELEZ EL BLANCO, a small town of the south-east of Spain, in the province of Granada, on the borders of Murcia, four miles N. N. W. of Velez el Rubio.

VELEZ MALAGA, a considerable town in the south of Spain, in Granada, fourteen miles north-east of the present city of Malaga. The town, two miles distant from the sea, takes its name from the river Velez, which passes its walls, flowing southward from the Sierra or chain of mountains separating Granada from Andalusia. Nothing can surpass the beauty of the country, with its groves and its mountain streams. The population of the town amounted to 16,000 till 1804, when nearly half that number were carried off by the dreadful fever which ravaged Cadiz, Malaga, and other parts of the south of Spain.

VELEZ EL RUBIO, an inland town in the province of Granada, Spain, but situated within a few miles of that of Murcia. It stands on the great road leading from Andalusia into that province by Lorca, on the Guadalentin, a river running from west to east, in a district that is hilly rather than mountainous. Its population amounts to 7000. Twenty-two miles west by south of Lorca.

VELIOCASSI, an ancient people of Gaul.

VELITES, in the Roman army, a kind of ancient soldiery, who were armed lightly with a javelin, a cask, cuirass, and shield.

VELLA, in botany, Spanish cress, a genus of plants, of the class of tetradynamia, and order of siliculosa; ranking according to the natural method in the thirty-ninth order, siliquosæ.

VELLEITY, *n. s.* Fr. *velleite*; Lat. *velleitas*, *vella*. A degree of desire.

*Velleity* is the school term used to signify the lowest degree of desire. *Locke.*

The wishing of a thing is not properly the willing of it; but it is that which is called by the schools an imperfect *velleity*, and imports no more than an idle, unoperative complacency in, and desire of the end, without any consideration of the means.

*South.*

VELLEIUS PATERCULUS. See PATERCULUS.

VELLETRI, a considerable but irregular town in the States of the Church and delegation of Rome, built on the declivity of Mount Arimisio. Its population amounts to about 12,000 and it contains several detached buildings entitled to notice, such as the Palazzo Ginetti, with

its elegant front, and the Palazzo Borgia, with its fine collection of paintings and antiques. The town-house is also a good building, and several of the fountains are handsome. The principal square contains a bronze statue of pope Urban VIII. by Bernini. Velletri, originally a town of the Volsci, became at an early period a Roman colony; and, being the seat of the Octavian family, had the honor of giving birth to Augustus. It is twenty miles south-east of Rome.

VEL'LICATE, *v. a.* } Latin *vellico*. To  
VELLIC'ATION, *n. s.* } twitch; pluck; act by  
stimulation: the noun substantive corresponding.

Those smells are all strong, and do pull and *vellicate* the sense. *Bacon.*

All purges have a kind of twitching and *vellication*, besides the gripping, which cometh of wind. *Id.*

Convulsions arising from something *vellicating* a nerve in its extremity, are not very dangerous. *Arbuthnot.*

There must be a particular motion and *vellication* impress upon the nerves, else the sensation of heat will not be produced. *Watts on the Mind.*

VELLORE, or VELUR, a district in the Carnatic, bounded on the west by the Eastern Ghauts, and at present comprehended in the Arcot collectorship. A greater degree of verdure prevails here than is usually seen in the Carnatic, owing probably to a subterraneous supply of water. During the dry season the whole of the rice land is irrigated by means of canals, which are either dug across the dry channel of rivers, below the surface of which there is always moisture found, or it is conducted from places in which subterranean streams have been discovered. In some parts of this district, near the Palar River, indigo is cultivated.

VELLORE, a town and fortress in the Carnatic, the capital of a district of the same name. Lat. 12° 55' N., long. 79° 13' E. The walls of the fort are built of very large stones, and have bastions and round towers at short distances. A *fausse bray* lines the wall between them, and with its embattled rampart and small overhanging square towers produces a very handsome effect. A deep and wide ditch, cut chiefly out of the solid rock, surrounds the whole fort, except at one entrance, where there was a causeway according to the Hindostan system; and, in addition to the usual defence, the ditch contains alligators of a very large size. This fortress is so completely commanded from the hills, that a six-pounder can throw a shot over it; but the conquest of Mysore has rendered it now of little comparative consequence. On the 10th of July, 1806, a most atrocious revolt and massacre took place; in which, from extensive evidence taken immediately after the event, it was proved the family of Tippoo, particularly the eldest, Mciz ud Deen, took an open and active part. The insurgents were subdued, and mostly put to the sword by colonel Gillespie and a party of the nineteenth dragoons; and, to prevent the recurrence of a similar calamity, the instigators were removed to Bengal. Travelling distance from Madras eighty-eight miles, west by south; from Seringapatam 202 miles.

VEL'LUM, *n. s.* Fr. *velin*; Lat. *velamen*, or low Lat. *vitulinum*. The skin of a calf dressed for the writer.

The skull was very thin, yielding to the least pressure of my finger, as a piece of vellum.

Wiseman.

VELO'CITY, *n. s.* Fr. *vélocité*; Lat. *velocitas*. Speed; swiftness; quick motion.

Had the velocities of the several planets been greater or less than they are now, at the same distances from the sun; or had their distances from the sun, or the quantity of the sun's matter, and consequently his attractive power, been greater or less than they are now, with the same velocities, they would not have revolved in concentric circles, but moved in hyperbolas, or parabolas, or in ellipses, very eccentric.

Bentley's Sermons.

VELOCITY, in mechanics, swiftness; that affection of motion whereby a moveable is disposed to run over a certain space in a certain time. It is also called celerity, and is always proportional to the space moved. Huygens, Leibnitz, Bernouilli, Wolfius, and the foreign mathematicians, hold that the momenta or forces of fallen bodies, at the end of their falls, are as the squares of their velocities to the quantity of matter; the English mathematicians, on the contrary, maintain them to be as the velocities themselves to the quantity of matter. See QUANTITY.

VEL'VET, *n. s., adj., &c.* Fr. *velours*; Ital.

VELURE', *n. s.* [*v. n.* *veluto*; Lat. *villus*.

Silk with a short fur or pile upon it: made of velvet; soft; delicate; to paint velvet: velure is an old synonyme.

As worldlings do, giving thy sum of more  
To that which had too much. Then being alone,  
Left and abandoned of his velvet friends;  
'Tis right, quoth he: thus misery do part  
The flux of company.

Shakspeare.

His horse with one girt, six times pieced, and a woman's crupper of velure, pieced with packthread.

Id.

This was moulded on a porringer,  
A velvet dish.

Id. Taming of the Shrew.

Verdure, ground with a weak gum arabic water, is the palest green that is, but good to velvet upon black in any drapery.

Peacham on Draving.

Clad in white velvet all their troop they led,  
With each an oaken chaplet on his head.

Dryden.

The different ranging the superficial parts of bodies, as of velvet, watered silk, we think probably is nothing but the different refraction of their insensible parts.

Locke.

Such blessings nature pours,  
O'erstocked mankind enjoy but half her stores;  
In distant wilds, by human eyes unseen,  
She rears her flowers, and spreads her velvet green.

Young.

VELVET, a rich kind of stuff, all silk, covered on the outside with a close, short, fine, soft shag, the other side being a very strong close tissue. The nap or shag, called also the velveting, of this stuff, is formed of part of the threads of the warp, which the workman puts on a long narrow channelled ruler or needle, which he afterwards cuts by drawing a sharp steel tool along the channel of the needle to the ends of the warp. The principal and best manufactories of velvet are in France and Italy.

VENAISSIN, a district of France, between Provence and Dauphiny. Philippe le Hardi,

king of France, ceded it to pope Gregory X. in 1273, and it remained in the hands of the popes until 1793, when it was incorporated with France, and now forms part of the department of Vaucluse.

VENAL, *adj.* } Fr. *venal*; Lat. *venalis*.

VENAL'ITY, *n. s.* } Mercenary; prostitute: the noun substantive corresponding.

It is unreasonable to affirm that the cool venal blood should be heated so high in the interval of two pulses.

Ray.

This verse be thine, my friend, nor thou refuse  
This, from no venal or ungrateful muse.

Pope.

VENANGO, a county of the United States, in Pennsylvania, bounded north by Crawford and Warren counties, east by Jefferson county, south by Armstrong and Butler counties, and west by Mercer county. Chief town, Franklin. It is watered by the Allegany, and but thinly settled.

VENATION, *n. s.* Lat. *venatio*. The act or practice of hunting.

The manner of their venation we shall find to be otherways than by sawing away of trees.

Browne.

VEND, *v. a.* } Fr. *vendre*; Lat. *vendo*.

VENDEE', *n. s.* } To sell; offer to sale: the

VEND'ER, } vendee or vender is he who

VEND'IBLE, *adj.* } sells: vendible, marketable; saleable.

Silence only is commendable

In a neat's tongue dried, and a maid not vendible.

Shakspeare.

This so profitable and vendible a merchandize riseth not to a proportionable enhancement with other less beneficial commodities.

Carew.

He had a great parcel of glasses packed up, which, not having the occasion he expected to vend and make use of, lay by him.

Boyle.

Where the consumption of commodity is, the vendors seat themselves.

Graunt.

Those make the most noise, who have the least to sell, which is very observable in the vendors of card-matches.

Addison.

If a vicar sows his glebe, or if he sells his corn, and the vendee cuts it, he must pay the tithes to the parson.

Ayliffe.

VENDEE, a department in the west of France, comprising a part of Poitou, and bounded on the east by the department of the Two Sevres, and on the west by the Atlantic. Its extent is 2600 square miles, almost entirely level, the department containing no eminence whose elevation exceeds 450 feet. It is divided into three parts; the wood, the marsh, and the plain. But the first is sufficiently fertile in corn, wine, and pasture. The marsh, comprising the part contiguous to the coast, though naturally sterile, has become one of the best cultivated and fertile parts of France. The plain, formed of the tongue of land comprised between the woody part and the northern limit of the department, is also fertile. and fit for various kinds of culture. The principal rivers are the two Sevres, the Vendee, and the Autise. The exports consist of corn, cattle, bay salt, and, in a smaller degree, of wool and hides. The department is divided into the three arrondissements of Bourbon Vendee (the chief town), Sables d'Olonne, and Fontenay.

VENDITATION, *n. s.* Lat. *vendito, venditatio*. Boastful display.

Some, by a cunning protestation against all read-



ing, and *venedication* of their own naturals, think to divert the sagacity of their readers from themselves, and cool the scent of their own fox-like thefts; when yet they are so rank as a man may find whole pages together usurped from an eauthor. *Ben Jonson.*

**VENDOME** (Louis Joseph), duke of, a celebrated French general, was born in 1654. In 1697 he took Barcelona. In 1702 he superseded Villeroi in Italy, and gained several victories over the imperialists. In 1765 he defeated prince Eugene at Cassano, and was on the point of taking Turin, when he was sent to Flanders, and there defeated by Marlborough. He then went to Spain, restored Philip to his capital, and took the English army under lord Stanhope prisoners. He died in Spain in 1712.

**VENDOME**, a town in the central part of France, the capital of the department of the Loir and Cher, situated on the right bank of the Loir. Inhabitants 8000.

**VENEERING**, **VANEERING**, or **FINEERING**, a kind of marquetry, or inlaying, whereby several thin slices or leaves of fine wood, of different kinds, are applied and fastened on a ground of some common wood. There are two kinds of inlaying; the one, which is the more ordinary, is only making compartments of different woods; the other requires much more art, and represents flowers, birds, and the like figures. The first kind is what we properly call veneering, for the latter see **MARQUETRY**. The wood intended for veneering is first sawed out into slices or leaves, about a line thick. To saw them, the blocks or planks are placed upright in a kind of vice or sawing press. These slices are afterwards cut into slips, and fashioned according to the design proposed; then the joints being carefully adjusted, and the pieces brought down to their proper thickness, with several planes for the purpose, they are glued down on a ground or block of dry wood. The pieces thus joined and glued, the work, if small, is put in a press; if large, it is laid on the bench, covered with a board, and pressed down with poles, or pieces of wood, one end whereof reaches to the ceiling of the room, and the other bears on the boards. When the glue is quite dry, they take it out of the press and finish it; first with little planes, then with divers scrapers, some whereof resemble rasps, which take off dents, &c., left by the planes. When sufficiently scraped, the work is polished with sealskin, wax, and a brush and polisher of shave-grass; which is the last operation.

**VENEFICIAL**, *adj.* } Lat. *veneficium*. Act-  
**VENEFICIOUSLY**, *adv.* } ing by poison; be-  
witching: the adverb corresponding.

The magical virtues of misseito, and conceived efficacy unto *veneficial* intentions, seemeth a Pagan relique derived from the ancient Druides.

*Browne's Vulgar Errors.*

Lest witches should draw or prick their names therein, and *veneficiously* mischief their persons, they broke the shell. *Id.*

**VENENATE**, *v. a.* } Lat. *veneno*. To poi-  
**VENENATION**, *n. s.* } son; infect with poison:  
the noun substantive corresponding.

These miasms entering the body, are not so energetic as to *venenate* the entire mass of blood in an instant. *Harvey.*

This *venenation* shoots from the eye; and this way a basilisk may impose.

*Browne's Vulgar Errors.*

By giving this in fevers after calcination, whereby the *venenate* parts are carried off.

*Woodward on Fossils.*

**VENENE'**, *adj.* } Fr. *veneneux*; Lat. *vene-*  
**VENENOSE'** } *num.* Poisonous; venom-  
ous. Unusual.

Dry air opens the surface of the earth to disincarcerate *venene* bodies, or to attract or evacuate them hence. *Harvey.*

Malpighi, in his treatise of galls, under which he comprehends all preternatural and morbose tumours of plants, demonstrates, that all such tumours, where any insects are found, are raised up by some *venenose* liquor, which, together with their eggs, such insects shed upon the leaves. *Ray.*

**VENERABLE**, *adj.* } Fr. *venerable*; Lat.  
**VENERABLY**, *adv.* } *venerabilis*. To be re-  
**VENERATE**, *v. a.* } garded with awe; to be  
**VENERATION**, *n. s.* } treated with reverence:  
**VENERATOR**. } the adverb correspond-  
ing: to venerate is to reverence, regard, or treat with awe: the noun substantives both correspond.

As by the ministry of saints, it pleased God there to shew some rare effect of his power; or in regard of death, which those saints have suffered for the testimony of Jesus Christ, did thereby make the places where they died *venerable*. *Hooker.*

When baseness is exalted, do not bate  
The place its honour for the person's sake:

The shrine is that which thou dost *venerate*,  
And not the beast that bears it on its back. *Herbert.*

If the state of things, as they now appear, involve a repugnancy to an eternal existence, the arguments must be conclusive to those great priests and *venerators* of nature. *Hale.*

Ye lamps of heaven! he said, and lifted high  
His hands, now free; thou *venerable* sky!  
Inviolable powers, adored with dread,  
Be all of you adured. *Dryden's Æneid.*

The lords and ladies here approaching paid  
Their homage, with a low obeisance made,  
And seemed to *venerate* the sacred shade. *Dryden.*

Theology is the compression of all other knowledge directed to its true end, i. e. the honour and *veneration* of the Creator, and the happiness of mankind. *Locke*

We find a secret awe and *veneration* for one who moves above us in a regular and illustrious course of virtue. *Addison.*

Even the peasant dares these rights to scan,  
And learn to *venerate* himself as man. *Goldsmith.*  
A good clergyman must love and *venerate* the gospel that he teaches, and prefer it to all other learning. *Clarissa.*

**VENEREAL**, *adj.* } Latin *venerens*. Re-  
**VENEREOUS**, } lating to love, or to  
**VENERY**, *n. s.* } sexual pleasures; con-  
sisting of copper, called *venus* by chymists:  
lustful: the pleasures of the bed.

These are no *venerual* signs,  
Vengeance is in my heart, death in my hand. *Shakspeare.*

Then sworn with pride into the snare I fell,  
Of fair fallacious looks, *venerual* trains,  
Softened with pleasure, and voluptuous life. *Milton.*

Blue vitriol, how *venerual* and unsophisticated soever, rubbed upon the wetted blade of a knife will not impart its latent color. *Boyle.*

Contentment, without the pleasure of lawful *venery*, is continence; of unlawful, chastity.

*Grew's Cosmologia.*

They are averse to *venereal* pleasure. *Addison.*

*Venereal* distempers confirmed by frequent relapses, where the transient satisfaction is overbalanced by a sad variety of tragical sufferings that attend it, often produce a downright consumption of the lungs.

*Blackmore.*

The male is lesser than the female, and very *venereous*.

*Derham.*

*VENEREAL*, in medicine, belonging to *venery*; as the lues *venerea*, &c. See *MEDICINE*, Index.

*VENERONI* (John), was born at Verdun. He taught Italian at Paris; and, to pass for a Florentine, he changed his name to Vignerone. He was the author of an Italian grammar, dictionary, &c.

*VEN'ERY*, *n. s.* Fr. *venerie*, *vener*, from Lat. *venar*. The sport of hunting.

To the woods she goes to serve her turn,  
And seek her spouse, that from her still does fly,  
And follows other game and *venery*. *Spenser.*

The Norman demolished many churches and chapels in New Forest, to make it fitter for his pleasure and *venery*. *Howel.*

*VENESECTIO*, *n. s.* Lat. *vena* and *sectio*. Blood-letting; the act of opening a vein; phlebotomy.

If the inflammation be sudden, after evacuation by lenient purgatives, or clyster and *venesection*, have recourse to anodynes. *Wiseman's Surgery.*

*VENESECTIO*. See *SURGERY*.

*VENETI*, a people of Italy, in Cisalpine Gaul, near the mouths of the Po. They were descended from a nation of Paphlagonia, who settled there under Antenor, some time after the Trojan war.

*VENETIAN BOLE*, a fine red earth used in painting, and called in the color shops *venetian red*. It is dug in Carinthia.

*VENETIANO* (Dominic), a Venetian painter, who introduced oil painting into Italy, but communicating the secret to Castagno, he was murdered by him, that he might have the secret to himself.

*VENEV*, a town of the interior of European Russia, in the government of Tula, on the river *Venevka*. It contains 2400 inhabitants, and has, on a small scale, manufactures of silk. Thirty miles east of Tula.

*VEN'EY*, *n. s.* Fr. *venez*. A bout; a turn at fencing.

I bruised my shin with playing at sword and dagger, three *venezs* for a dish of stewed prunes.

*Shakspeare.*

*VENEZUELA*, a province of the Caraccas, Colombia, bounded on the north by the Caribbean Sea, on the west by Maracaibo and Varinas, and south by the great plains of Varinas and the Orinoco. It was named Venezuela from the towns inhabited by Indians which were seen by the Spaniards, on the lake of Maracaibo, having a resemblance to Venice. The soil is fertile, and yields in abundance all the tropical products. Its most noted commercial article is cacao, inferior to none in America; vanilla, maize, indigo, cotton, sugar, tobacco, and coffee, are a few of the richest objects of cultivation; wild cochineal, dye woods, medicinal drugs, gums, resins, balsams,

sarsaparilla, sassafras, liquorice, squills, storax, cassia, and aloes, here find that climate the most favorable to their growth; and the immense plains in the interior feed multitudes of cattle, horses, and mules, and in the valleys and mountains sheep and deer are numerous. All kinds of game are found. On the coast and in the plains a scorching heat prevails, often accompanied with deluges of rain. The mountains, which form a part of the great branch extending from the west to the gulf of Paria, divide the lands of the coast from the plains of the valley of the Orinoco. Their surface is rent in every direction, by the force of subterranean convulsions, and it is on these mountains that the climate is so singularly altered that a traveller may observe the fruits of the tropics luxuriating at a short distance from those of Europe. To the south of this chain, the llanos or plains, which stretch to the Orinoco, are inhabited solely by herds of cattle, tended by mulattoes, who are as nearly in a state of nature as the beasts they guard. On the plains the rainy season commences in April, and continues till November. The lakes of Venezuela are not numerous, for we can hardly give that appellation to the sheets of water produced by the periodical swell of the Orinoco, or the rains. The lake of Valencia is an extensive sheet of water, and the rivers of Venezuela are more numerous than in any other part of New Spain. Every valley has its stream. The principal of these, which run from the mountains of Caraccas and Coro into the Caribbean Sea, are the Guiges, Tocuyo, Aroa, Yaracuy, and the Tuy. The rivers which rise on the southern side of the chain, and flow to the Orinoco, are the Guarico, which receives some of the branches of the Apure, and then, following a course parallel to that river, enters the Orinoco a short distance eastward of it. The islands formed by the junctions of the Apure and Guarico are the Isla de Blanco, Isla del Apurito, and the Isla de las Garzitas. The Guarico, which is a very fine river, is joined, near its confluence with the Orinoco, by the Rio Manapra, which flows through the plains of Calabozo. Most of these swell in the month of April, and continue to overflow their banks during three or four months, covering the lowlands. They abound in alligators and fish.

*VENGE*, *v. a.* } Fr. *venger*. To avenge;  
*VENGEABLE*, *adj.* } punish: *vengeable* is re-  
*VENGEANCE*, *n. s.* } vengeful; spiteful; both  
*VENGEFUL*, *adj.* } are unusual words: *vengeance* is punishment; retribution; and hence perhaps, as a species of power, vehemence, ardor: *vengeful* is vindictive; retributive; spiteful.

Let me see thy *vengeance* on them. *Jer. xi. 20.*

A thrilant dart he threw,  
Headed with ire and *vengeable* despite. *Spenser.*

The right conceit which they had, that to perjury *vengeance* is due, was not without good effect as touching their lives, who feared the wilful violation of oaths. *Hooker.*

All the stored *vengeances* of heaven fall  
On her ingrateful top! *Shakspeare. King Lear.*

You are above,  
You justices, that these our nether crimes  
So speedily can *venge*. *Shakspeare.*



Resolutions of future reforming do not always satisfy thy justice, nor prevent thy vengeance for former misdoings. *King Charles.*

Asmodeus the fishy fume  
Drove, though enamoured, from the spouse  
Of Tobit's son, and with a vengeance sent  
From Medea post to Egypt, there fast bound. *Milton.*

Doubt not but God  
Hath wiselier armed his vengeful ire. *Id.*

But what a vengeance makes thee fly  
From me too, as thine enemy? *Hudibras.*

Jove's and Latona's son his wrath expressed,  
In vengeance of his violated priest. *Dryden.*

The chorus interceded with heaven for the innocent,  
and implored its vengeance on the criminal. *Addison's Spectator.*

Dissembling for her sake his rising cares,  
And with wise silence pondering vengeful wars. *Prior.*

Round him a crowd of threatening furies stands,  
With instruments of vengeance in their hands. *Harte.*

VENIABLE, *adj.* } Fr. *veniel*; Lat. *venia*.  
VENIAL. } Pardonable; susceptible  
of pardon; excusable; permitted.

If they do nothing, 'tis a venial slip. *Shakspeare.*  
Permitting him the while

Venial discourse unblamed. *Milton's Paradise Lost.*

More veniable is a dependence upon potable gold,  
whereof Paracelsus, who died himself at forty-seven,  
gloried that he could make other men immortal.

*Broune's Vulgar Errors.*

What horror will invade the mind,  
When the strict judge, who would be kind,  
Shall have few venial faults to find! *Roscommon.*

While good men are employed in extirpating  
mortal sins, I should rally the world out of indecencies  
and venial transgressions. *Addison.*

VENICE, a celebrated city of Italy, situated near the northern extremity of the Adriatic, is built on a collection of small islands, separated from the mainland by shallows of a depth of three, four, five, or six feet, and has hence a singular appearance from a distance. Its domes and spires, and public buildings, appear to the spectator, particularly in approaching by sea, almost to float on the surface of the waves. This appearance is particularly striking at night.

The length of the city is somewhat above two miles, its breadth a mile and a half, its circuit six miles. It is divided into two parts by a canal, which winds through its whole length in a serpentine form. This canal is above 100 feet in width, and is crossed on one part by a bridge of a single arch, the celebrated Rialto. Every part almost of the town is intersected by smaller canals navigated by gondolas. The gondolas are five feet in width and twenty in length. The usual hire of one is a shilling an hour; but it is customary among fashionable families to keep a gondola. Venice is separated for the purpose of police into six parts, of which the most eastern adjoins the castle, and bears the name of Sestiere de Castello; the Sestiere de St. Marco lies more towards the centre of the city, and that of Canareggio comprises the north-west division. These three are to the north of the great canal; the remaining quarters are situated to the south of it. That of St. Paolo is in the south-east; that of St. Croce in the west, including several small

gardens; and lastly, that of Dorsò Duro forms the most southern division of the city, bordering on the Canale della Giudecca.

In regard to the streets it will hardly be credited that their breadth is in general only four, five, or six feet; in many places still less. The only exception is the street called the Merceria, situated near the centre of the town, and containing shops of all kinds; but even of that the breadth varies only from twelve to twenty feet. The only open place entitled to the name of square is the Piazza di San Marco, an oblong of 280 feet in length by nearly 100 in breadth, bordered by several handsome buildings. The principal are the churches of St. Marco and Gemignano; the palace formerly occupied by the doge, and the buildings, called Procureria, fronted in the Grecian style. This small but elegant square is bordered by arcades containing elegant shops and coffee-rooms. It forms the central point of the gaiety and amusements of the city. The Piazzetta is a smaller opening, leading from the square of St. Marco to the sea, and having on the one side the palace of the doge, on the other the public library with its pillars of granite. To ride either in a carriage or on horseback is wholly out of the question in Venice. Accordingly the streets, or rather lanes, are paved not with round stones but flags, or marble slabs, having small sewers for carrying off the filth: the ordinary dwellings are of brick covered with wood and provided with balconies. Personal accommodation, and in a great measure the enjoyment of good air, are sacrificed, in the interior, that space may be found for magnificent statues and works of art. The general height is three or four stories. The larger houses are commonly of a square form, with an inside court containing a cistern, into which water flows from the roof; and, after being filtrated, serves for domestic purposes. Such houses have in general one door to a canal, and another to a street. A number of them are built of marble.

The church of St. Martin, Mark, or Marco, the most entitled to notice of any in Venice, stands at one end of the Piazza di St. Marco, and is so loaded with ornaments as to bear some resemblance to an eastern pagoda. It is partly of stone, partly of marble, and surrounded with a portico of no less than 288 pillars of marble, porphyry, or other valuable materials. Its inside is ornamented with the spoils of Constantinople, and displays a profusion of marble, alabaster, emeralds, &c. Its mosaics are surpassed only by those of St. Peter at Rome; and its paintings are numerous and splendid. On the portico facing the piazza the Venetians once more see the bronze horses which, during eighteen years (from 1797 to 1815), crowned the triumphal arch in the Place du Carrousel at Paris. The church of Santa Maria della Salute, the work of Palladio, is an elegant structure, open to the great canal, and built of marble, with a moderate share of ornament. The church of the Redeptore is also an elegant building. The cathedral of Venice, dedicated to St. Peter, stands on an island at the eastern end of the city, and is built of Istrian marble. The church of St. Georga is remarkable for its front of marble

and its cupola; that of St. Giovanni and St. Paolo is a large Gothic edifice, surmounted by a cupola, and is the Westminster Abbey of Venice, covering the tombs of many of its doges and defenders.

The former palace of the doges, the place of assemblage for the senate and different councils of state during the republic, is a vast ancient fabric in the Gothic style. Its lofty apartments are ornamented with paintings by the first masters; its court and stair-cases with elegant statues. Of the other palaces or mansions of the great families the most conspicuous are those of Goiniani, Tiopolo, Balbi, Cornaro, &c. The arsenal is a commodious and even magnificent building, situated on an island near the eastern end of the city, and defended by a rampart. Before its gates are two great pillars, with the two gigantic lions in granite which stood formerly on the Piræus at Athens.

The Rialto consists of one great marble arch, of ninety feet span, ascended at each end by a flight of steps. Its height would afford the passenger a beautiful view of the city were not the prospect impeded by a row of shops which cross it at each side. The public library stands in a fine marble structure near the square of St. Mark. Adjoining is the mint, an elegant building with arcades. On the great canal, not far from the Rialto, stands the Fondaco di Tedeschi, long a depôt for German merchandise, now the council-house. Of theatres Venice has no less than eight great and small; but several of them are open only during the carnival.

To say nothing of political causes, since the discovery of the passage to India by the cape of Good Hope, the trade from Venice to the east has naturally diminished: at present the mercantile transactions of this city are less active than those of Trieste, and are chiefly confined to intercourse with the Levant; to the import of hardware, linen, and other manufactures from the north of Europe; of East and West India goods direct or through the medium of Malta; and, finally, of salt fish from Newfoundland or England. Vessels arriving at Venice, after surmounting the intricacy of the approach, find a spacious and commodious harbour, containing four separate quays or landing places; but most of the shipping lie near the mouth of the great canal, or along the shore westward from that spot.

The manufactures of Venice comprise woollens, serges, canvas, and ropes; gold and silver stuffs, velvet, and silk stockings, and lace made chiefly on the adjacent island of Murano. Venice contains petty manufactures of false pearls and other precious stones, ornamental glass works, jewellery, and wax work. Printing is carried on here more extensively than in any other town in Italy; and books are supplied by wholesale to the Grecian islands, Constantinople, Spain, and Portugal.

Venice is, however, the seat of an academy of the fine arts, of an atheneum, or seminary forming a medium between a great school and a university; and it contains one of the five sections of the imperial institute for the kingdom of Italy. It also contains a navigation school, and

a female establishment called the conservato: the Rio de Pietà, where education is given gratuitously to more than 100 young women. The public library is extensive, and there are a number of private collections of curiosities. At some distance from the town, on the small island of Lazarus, there is a seminary of Armenians, who have an extensive library and printing office; who educate young Armenians, and publish a newspaper, circulated, under certain restrictions, in their own country.

The characteristics of the climate of Venice are a summer heat much greater than that of England; a winter not of great length but sharp, particularly during the prevalence of a north-west wind. Rains are frequent in Venice; and there being no springs nor wells, the inhabitants are chiefly supplied with water collected in cisterns. On the other hand Venice is not an expensive city; the abundance and cheapness of its markets exhibit a striking proof of the ease of supplying a city by water. Its population does not at present exceed 120,000.

It was founded about A. D. 451 or 452; when Attila having destroyed the cities of Aquileia, Verona, Mantua, Trevigio, &c., such of the inhabitants as escaped the slaughter fled to the islands on their coast, and there took up their residence. Historians are profuse in their commendations of the virtue of the Venetians during the infancy of their city. Nothing, remarkable, however, occurs in the history of Venice for some time, excepting the change of government from the consular to the tribunitial form, which happened about thirty years after the building of the city. The republic first began to be of consequence after the destruction of Padua by the Lombards. About this time they were become masters of a fleet and a body of land forces. They engaged in a quarrel with the Lombards, and soon after distinguished themselves against the Istrian pirates, who had committed depredations on their coasts; and the Tergestines or inhabitants of Trieste, who had suddenly carried off a number of the citizens of Venice. The city very soon arrived at a high pitch of affluence and power. In the war carried on by Justinian with the Goths in Italy, the Venetians gave considerable assistance to Narses the Roman general, who expressed his gratitude by several rich presents, and by building two fine churches dedicated to the saints Theodore and Germanian; the oldest public buildings, beside St. Mark's and St. Peter's, in Venice. From the time of Justinian to A. D. 697, historians are silent with regard to the Venetian affairs. A great revolution then took place in the government; the tribunes, having abused their power, were abolished; and in their stead was elected a doge or duke, in whom was vested the supreme authority. He was to represent the honor and majesty of the state; to have respect and distinction paid him beyond what the tribunes, or even the consuls, enjoyed: he was to assemble and preside at the great council; to have a casting vote in all disputed points; to nominate to all offices, places, and preferments; and, lastly, to enjoy the same authority in the church as in the state. Paul Anafestus Paoluccio was the first doge. 116



died in 717. This form of government was changed in 737, and a supreme magistrate chosen, with the title of master of the horse or general of the forces. His power was to continue only for a year, the shortness of its duration being thought a security against the abuse of it. But in five years afterwards the doges were restored, and John Fabritio, the fourth and last master of the horse, was deposed, and his eyes put out. Under the doges, the power and wealth of the Venetian republic continued to increase. In 764 the Heracleans and Jesulans, subjects to the republic, having formed some designs against the state, put themselves under the protection of Charlemagne. That conqueror, not finding it convenient to give them present assistance, settled them in Malamocco, until he could give them more effectual succor. The Venetians, however, disregarding the protection of that powerful monarch, attacked and instantly drove them out of Malamocco. Incensed at this, Charlemagne ordered his son Pepin to declare war against the republic. This was done; but the blow was for some time diverted by Astolphus king of the Lombards, who, committing great devastations in the territories of the pope, obliged Pepin to come to the assistance of his holiness. However, after having afforded the necessary succor to the pope, Pepin prosecuted the war with Venice. Upon which the Venetians declared themselves a free and independent state. But in 804 the war was renewed with the utmost fury. Pepin having quarrelled with Nicephorus the Greek emperor, and finding Obelerio the Venetian doge inclined to favor his adversary, he determined to exterminate the very name of the republic. After having laid waste the surrounding province, he led his army directly to Venice, blocking the city up at the same time by his fleet. The Venetians united and gave the chief command to Valentin, as Obelerio was supposed too nearly allied to Pepin to fight with that good-will and cheerfulness the service of his country required. The Venetians, notwithstanding the most obstinate defence, were at length reduced to that part of the city south of the Rialto. While Pepin was preparing to lay a bridge over the canal, they resolved, as a last effort, to attack his fleet. Embarking all the troops they could spare, they succeeded in driving the enemy's fleet aground, and the greater part of their troops perished in attempting to escape; the ships were all, to a few, either taken or destroyed. During this action at sea, Pepin, having thrown a bridge over the Rialto, was attacked on every side by the Venetians from their boats and others who had posted themselves on the bridge. The battle was long, bloody, and doubtful, until the Venetians succeeded in breaking down the bridge; when, all communication being cut off with the troops on shore, the French were to a man either killed or drowned. Pepin was so struck with the intrepidity of the Venetians, that he raised the siege, abandoned the enterprise, and concluded a peace with the republic. He afterwards came to Venice to intercede for Obelerio; but, the populace being persuaded that he had acted treacherously, Pepin was no sooner gone than

they tore him and his wife to pieces, though she was Pepin's sister. In 839 the Venetians engaged in an alliance offensive and defensive against the Saracens, with Michael III., the Greek emperor. A fleet of sixty galleys was immediately equipped, who joined the Grecian fleet and engaged the enemy; but during the heat of the engagement, the Greeks having basely deserted their allies, the Venetians were so completely defeated that scarcely a single vessel remained to carry the news of their misfortune to Venice. This defeat threw the city into the utmost consternation, as it was not doubted that the Saracens would immediately lay siege to the capital; instead of which they turned their arms against Ancona, which they pillaged and destroyed. The Narentines, however, a piratical people, no sooner heard of the defeat of the Venetians, than they laid waste the coasts of Dalmatia, and ravaged the country for a considerable way; at the same time that the city was distracted by internal dissensions and tumults, in one of which the doge was murdered. It was not till the year 881 that the Venetian affairs were thoroughly re-established. By the prudent and vigorous administration of Orso Participato the power of the Saracens was checked, the Narentines utterly defeated, and peace and domestic tranquillity restored. From this time the republic continued to flourish; and in 903 her reputation for arms became famous all over the world by a great victory gained over the Hungarians, who had invaded Italy, defeated Berengarius, and threatened the country with total destruction. For a long time after, we meet with no remarkable transactions in the Venetian history; but in general the republic increased in wealth and power by its indefatigable application to maritime affairs and to commerce. About the year 1040 it was ordained that no prince should associate a colleague with him in the supreme power. In 1084 the republic was, by the emperor of Constantinople, invested with the sovereignty of Dalmatia and Croatia, which, however, had been held long before by right of conquest. As soon as the crusade was preached up, the Venetians fitted out a fleet of 200 sail against the infidels; but, before this armament was in a condition to put to sea, war broke out with Pisa. The doge Vitalis Michael took upon him the command of the fleet, when, after having defeated the Pisans in a bloody action at sea, he set sail for Smyrna, and thence to Ascalon, at that time besieged by the Christians. To his valor was owing the conquest of this city, as well as those of Caipha and Tiberias; but, before he had time to push his good fortune further, he was recalled on account of an invasion by the Normans of Dalmatia. Here he was equally successful: the Normans were every where defeated; and Michael returned home loaded with booty; but died soon after to the great grief of all his subjects. He was succeeded by Ordelfapho Faliero, under whom the Venetians assisted Baldwin in the siege of Ptolemais, and were the chief instruments of its conquest; and Baldwin, in recompense for the services of the republic, invested her with the sovereignty of that city, which he endowed with

many extraordinary privileges, to render his present more valuable. This good fortune, however, was overbalanced by a rebellion in Dalmatia and Croatia. The former was reduced; but, in a battle with the Croats, the doge was killed, and his army entirely defeated; by which disaster the Venetians were so much dispirited, that they made a peace on the best terms they could, giving up all thoughts of Croatia for the time.

Under the government of Dominico Micheli, who succeeded Ordelapho, the pope's nuncio arrived at Venice, and excited such a spirit of enthusiasm among all ranks and degrees of men, that they strove whose names should be first enrolled for the holy war. The doge, having fitted out a fleet of sixty galleys, sailed with it to Joppa, which the Saracens were then besieging. The garrison was reduced to the last extremity when the Venetian fleet arrived, surprised, and defeated that of the enemy with great slaughter; soon after which the Saracens raised the siege with precipitation. Tyre was next besieged, and soon was obliged to capitulate; on which occasion, as well as on the taking of Ascalon, the Venetians shared two-thirds of the spoils. But in the mean time the emperor of Constantinople, jealous of the increasing power and wealth of the republic, resolved to make an attack upon Venice, now weakened by the absence of the doge and such a powerful fleet. But the senate, having timely notice of the emperor's intentions, recalled the doge, who instantly obeyed the summons. Stopping at Rhodes, in his way home, to refresh and water the fleet, the inhabitants refused to furnish him with the necessaries he demanded. Incensed at this denial, he levelled their city with the ground: and thence sailing to Chios, he laid waste and destroyed the country, carrying off the body of St. Isidore, in those days accounted an inestimable treasure. After this he seized on the islands of Samos, Lesbos, Andros, and all those in the Archipelago belonging to the emperor; and having reduced Zara, Spolatra, and Trahu, places in Dalmatia which had revolted during his absence, he returned in triumph to Venice, where he was received with great joy. The Venetians now became very formidable throughout all Europe. The Sicilians, Paduans, with the states of Verona and Ferrara, felt the weight of their power; and in 1173 they ventured to oppose Frederic Barbarossa, emperor of Germany. The occasion of this quarrel was, that pope Alexander had taken shelter in Venice to avoid the resentment of Barbarossa, who had conceived an implacable aversion against him, and threatened destruction to their city if they did not give him up. On this terrible menace, it was agreed to equip a fleet, and repel the attacks of such a formidable and haughty enemy. But, before the armament could be prepared, Otho, the emperor's son, arrived before the city with a fleet of seventy-five galleys. The doge Sebastiano Ziani sailed out with the few vessels he had got equipped, to give the enemy battle. The fleets met off the coasts of Istria, and a terrible engagement ensued, in which the imperial fleet was totally defeated, Otho himself taken prisoner, and forty-eight of his ships destroyed. On the doge's return, the pope went

out to meet him, and presented him with a ring, saying, 'Take this, Ziani, and give it to the sea, as a testimony of your dominion of it. Let your successors annually perform the same ceremony, that posterity may know that your valor has purchased this prerogative, and subjected this element to you, even as a husband subjecteth his wife.' Otho was treated with the respect due to his rank; and soon conceived a great friendship for Ziani. At last, being permitted to visit the imperial court on his parole, he not only prevailed on his father to make peace with the Venetians, but even to visit their city, so famed for its commerce and naval power. He was received with all possible respect, and on his departure attended to Ancona by the doge, the senate, and the whole body of the nobility. During this journey he was reconciled to the pope; and both agreed to pay the highest honors to the doge and republic. In the beginning of the thirteenth century, the Venetians, now become exceeding powerful and opulent, by the commerce which they carried on with the richest countries of the world, were invited by young Alexis, son to the emperor of Constantinople, to his father's assistance, who had been deposed by a rebellious faction. In conjunction with the French, they undertook to restore him; and easily succeeded. But the old emperor dying soon after, his son was elected in his room, and a few days after murdered by his subjects; on which the empire was seized by Myrtillus, a man of mean birth, who had been raised by the favor of old Alexis. As the allied army of French and Venetians was encamped without the city, Myrtillus resolved immediately to drive them out of his dominions, and for this purpose attempted to surprise their camp; but, being repulsed, he shut himself up in the city, with a resolution to stand a siege. The allies assaulted it with so much vigor that the usurper was obliged to fly; and, though the citizens held out after his departure, they were obliged in less than three months to capitulate. This proved a source of greater acquisition to Venice than all that had yet happened. All the chief offices of the city were filled up with Venetians, in recompense for their services; the allies entered Thrace and subdued it; Candia, and all the Greek islands, also fell under the dominion of the republic. In the mean time the Genoese, by their successful application to commerce, having raised themselves in such a manner as to be capable of rivalling the Venetians, a long series of wars took place between the republics; in which the Venetians generally had the advantage, though sometimes they met with terrible overthrows. These expensive and bloody quarrels undoubtedly weakened the republic, notwithstanding its successes. In 1348, however, the Genoese were obliged to implore the protection of Visconti, duke of Milan, to support them against their implacable enemies the Venetians. Soon after this, in 1352, the latter were utterly defeated, with such loss, that it was thought the city itself must have fallen into the hands of the Genoese, had they known how to improve their victory. This was in a short time followed by a peace; but from this time the power of the republic began to decline. Con-



tinual wars with the states of Italy, with the Hungarians, and their own rebellious subjects, kept the Venetians employed, so that they had no leisure to oppose the Turks, whose rapid advances ought to have alarmed all Europe. After the destruction of the eastern empire, the Turks came more immediately to interfere with the republic. The consequences are related under the article *TURKEY*.

Whatever valor might be shown by the Venetians, or whatever successes they might boast of, it is certain that the Turks ultimately prevailed; so that for some time it seemed scarcely possible to resist them. What contributed also greatly to the decline of the republic was the discovery of a passage to the East Indies by the Cape of Good Hope, in 1497. To this time the greatest part of the East India goods imported into Europe passed through the hands of the Venetians; but, as soon as the above-mentioned discovery took place, the carriage by the way of Alexandria almost entirely ceased. Still, however, the Venetian power was strong; and in the beginning of the sixteenth century they maintained a war against almost the whole power of France, Germany, and Italy; but soon after we find them entering into an alliance with some Italian states and Henry IV. of France, against the emperor. These wars, however, produced no consequences of any great moment; and in 1573 tranquillity was restored by the conclusion of a peace with the Turks. Nothing of consequence happened in the affairs of the Venetian republic till 1645, when the Turks made a sudden and unexpected descent on the island of Candia. The senate of Venice did not display their usual vigilance on this occasion. They had seen the immense warlike preparations going forward, and yet allowed themselves to be amused by the grand seignior's declaring war against Malta, and pretending that the armament was intended against that island. The troops landed without opposition; and the town of Canea was taken, after an obstinate defence. This news, being brought to Venice, excited a universal indignation against the Turks; and the senate resolved to defend to the utmost this valuable part of the empire. Extraordinary ways and means of raising money were fallen upon; among others it was proposed to sell the rank of nobility. Four citizens offered 100,000 ducats each for this honor; and, notwithstanding some opposition, this measure was at last carried. Eighty families were admitted into the grand council, and to the honor and privileges of the nobility. The siege of Candia, the capital of the island of that name, is, in some respects, more memorable than that of any town which history has recorded. It lasted twenty-four years. The amazing efforts made by the republic of Venice astonished all Europe; their courage interested the gallant spirits of every nation: volunteers from every country came to Candia to exercise their valor, to acquire knowledge in the military art, and assist a brave people whom they admired. During this famous siege the Venetians gained many important victories over the Turkish fleet. Sometimes they were driven from the walls of Candia, and the Turkish garrison of Canea was even besieged by the Venetian fleets.

Great slaughter was made of the Turkish armies; but new armies were soon found to supply their place. Mahomet IV., impatient at the length of this siege, came to Negropont, that he might have more frequent opportunities of hearing from the vizier, who carried on the siege. This war cost the lives of 200,000 Turks. Candia capitulated in 1668. The conditions were honorably fulfilled. Morsini, the Venetian general, marched out of the rubbish of this well-disputed city with the honors of war. The expense of such a tedious war greatly exhausted the resources of Venice, which could not now repair them so quickly as formerly, when she enjoyed the rich monopoly of the Asiatic trade. This republic remained in a state of tranquillity, endeavouring, by the arts, of peace, and cultivation of that commerce which she still retained, to fill her empty exchequer, till she was drawn into a new war, in 1683, by the insolence of the Ottoman court. The Venetians had for some time endeavoured, by negotiation and many conciliatory representations, to accommodate matters with the Turks; and, though the haughty conduct of their enemies afforded small hopes of success, yet such was their aversion to war that they still balanced, whether to bear those insults or repel them by arms; when they were brought to decision by an event which gave the greatest joy to Venice, and astonished all Europe. This was the great victory gained over the Turkish army before the walls of Vienna, by Sobieski, king of Poland. In this new war their late general Morsini again had the command of the fleets and armies of the republic, and sustained the great reputation he had acquired in Candia. He conquered the Morea, which was ceded formally to Venice, with some other acquisitions, at the peace of Carlowitz, in 1699. During the war of the succession the state of Venice observed a strict neutrality. They considered that dispute as unconnected with their interests, taking care, however, to keep on foot an army on their frontiers in Italy, of sufficient force to make them respected by the contending powers. But, soon after the peace of Utrecht, the Venetians were again attacked by their old enemies the Turks; who, beholding the great European powers exhausted by their late efforts, and unable to assist the republic, thought this the favorable moment for recovering the Morea, which had been so lately taken from them. The Turks obtained their object; and at the peace of Passarowitz, which terminated this unsuccessful war, the Venetian state yielded up the Morea; the grand seignior, on his part, restoring to them the small islands of Cerigo and Cerigotto, with some places which his troops had taken during the course of the war in Dalmatia.

In the storms which followed the French revolution, and which brought Buonaparte with his army into the Venetian territory, the republic observed a cautious neutrality, and allowed its continental provinces to be overrun without resistance, at one time by the French, at another by the Austrians: but this caution could not secure the independence of the state; it was overturned in 1797, when it suited France to throw the city and territory of Venice into the

scale in the treaty of Campio Formio. They remained subject to Austria till 1805, when, after the disaster of Austerlitz, they were annexed to the French kingdom of Italy; but in 1814 returned definitively under the power of Austria. 150 miles east of Milan, and 246 north of Rome.

**VENIRE FACIAS**, in law, is a judicial writ lying where two parties plead and come to issue, directed to the sheriff, to cause twelve men of the same neighbourhood, to meet and try the same, and to say the truth upon the issue taken.

**VEN'ISON**, *n. s.* French *venaison*. Game; beast of chase; the flesh of deer. Chapman writes it venzon.

Shall we kill us *venison*?  
And yet it irks me the poor dappled fools  
Should have their round haunches gored.

*Shakspeare.*

To our *venzon's* store  
We added wine, till we could wish no more.

*Chapman.*

In the records of Ireland, no mention is made of any park, though there be vert and *venison* within this land.

*Davies's History of Ireland.*

He for the feast prepared  
In equal portions with the *venison* shared.

*Dryden.*

**VENIUS** (Otho), a celebrated Dutch painter, was born at Leyden, in 1556. He was the first, after Polydore Caravaggio, who reduced the claro-obscure to a principle of the art of painting. He died at Brussels 1634. He had also the honor of breeding up the famous Rubens in his art.

**VEN'OM**, *n. s.* } Fr. *venin*. Poison:  
**VEN'OMOUS**, *adj.* } the adjective and adverb  
**VEN'OMOUSLY**, *adv.* } corresponding.

The barbarians saw the *venomous* beast hang on his hand.

*Acts xxviii. 4.*

Your eyes, which hitherto have borne in them

The fatal balls of murdering basilisks:

The *venom* of such looks we fairly hope

Have lost their quality.

*Shakspeare. Henry V.*

Thy tears are saltier than a younger man's,

And *venomous* to thy eyes.

*Id. Coriolanus.*

A posterity not unlike their majority of mischievous progenitors; a *venomous* and destructive progeny.

*Browne.*

Like some tall tree, the monster of the wood,

O'ershadowing all that under him would grow,

He sheds his *venom* on the plants below.

*Dryden.*

His praise of foes is *venomously* nice;

So touched, it turns a virtue to a vice.

*Id.*

This falsity was broached by Cocheus, a *venomous* writer; one careless of truth or falsehood.

*Addison.*

**VENT**, *n. s.* & *v. a.* Fr. *fente*. A small aperture; hole; spiracle; passage at which any thing is let out; the act of opening; emission; discharge; also (Fr. *vente*) sale: to vent is to let out; give way to; utter; emit; report; sell.

On her breast

There is a *vent* of blood, and something blown;

The like is on her arm.

*Shakspeare. Antony and Cleopatra.*

Revoke thy doom,

Or, whilst I can vent clamour from my throat,

I'll tell thee thou dost evil.

*Id. King Lear.*

Therefore did those nations *vent* such spice, sweet gums, and pearls, as their own countries yielded.

*Raleigh.*

This profitable merchandise not rising to a proportional enhancement with other less beneficial commodities, they impute to the owners not *venting* and venturing the same.

*Carew.*

It failed by late setting out, and some contrariety of weather, whereby the particular design took *vent* before hand.

*Wotton.*

When men are young, and have little else to do, they might *vent* the overflowings of their fancy that way.

*Denham.*

Had, like grief, been dewed in tears,

Without the *vent* of words.

*Milton.*

They at once their reeds

Put forth, and to a narrow *vent* applied

With nicest touch.

*Id. Paradise Lost.*

By this war there is no *vent* for any commodity but of wool.

*Temple's Miscellany.*

Lab'ring still, with endless discontent,

The queen of heaven did thus her fury *vent*.

*Dryden.*

Land-floods are a great improvement of land, where a *vent* can be had.

*Mortimer's Husbandry.*

The farmer's cades mature,

Now call for *vent*; his lands exhaust, permit

T' indulge a-while.

*Philips.*

The smothered fondness burns within him:

When most it swells and labours for a *vent*,

The sense of honour and desire of fame

Drive the big passion back into his heart.

*Addison's Cato.*

Scarce any countries that are much annoyed with earthquakes, that have not one of these fiery *vents*, disgorging that fire, whereby it gains an exit.

*Woodward.*

He drew off a thousand copies of a treatise, which not one in threescore can understand, can hardly exceed the *vent* of that number.

*Pope's Letters.*

To draw any drink, be not at the trouble of opening a *vent*; or, if you take out the *vent*, stay not to put it in.

*Swift.*

**VENTA ICENORUM**, an ancient city of South Britain, now called Castor. The ruins of its walls contain a square of thirty acres, and exhibit four gates and towns. Urns, coins, &c., are dug up in it.

**VENTAN'NA**, *n. s.* Span. *ventanna*. A wind-dow.

What after passed

Was far from the *ventanna*, where I sat;

But you were near, and can the truth relate.

*Dryden.*

**VENTER**, *n. s.* Lat. *venter*. Any cavity of the body, applied to the head, breast, and abdomen, which are called by anatomists the three *venters*: a womb; mother.

*A* has issue *B* a son, and *C* a daughter, by one *venter*; and *D* a son by another *venter*. If *B* purchases in fee, and dies without issue, it shall descend to the sister, and not to the brother of the half blood.

*Hale.*

**VENTER INSPICIENDO**, is a writ to search a woman that saith she is with child, and thereby withhold lands from the next heir; the trial whereof is by a jury of women.

**VENTIDUCT**, *n. s.* Lat. *ventus* and *ductus*. A passage for the wind.

Having been informed of divers *ventiducts*, I wish I had the good fortune, when I was at Rome, to take notice of these organs.

*Boyle.*

**VENTILATE**, *v. a.* } Lat. *ventilo*. To fan  
**VENTILATION**, *n. s.* } with wind: hence to  
**VEN'TILATOR**. } drive out foul air; and,



metaphorically, to examine; discuss: ventilation is the act of ventilating, or state of being ventilated; vent; utterance: ventilator, an instrument of ventilation.

To his secretary, Doctor Mason, whom he let lie in a pallet near him, for natural ventilation of his thoughts, he would break out into bitter eruptions.

*Wotton's Buckingham.*

Procure the blood a free course, ventilation, and transpiration, by suitable and ephractic purges.

*Harvey.*

The soil, worn with too frequent culture, must lie fallow till it has recruited its exhausted salts, and again enriched itself by the ventilations of the air.

*Addison.*

Nor is the right of the party, nor the judicial process in right of that party, so far perempted, but that the same may be begun again, and ventilated de novo.

*Ayliffe.*

Miners, by perforations with large bellows, letting down tubes, and sinking new shafts, give free passage to the air, which ventilates and cools the mines.

*Woodward.*

VENTILATOR, a machine by which the noxious air of any close place, as an hospital, gaol, ship, chamber, &c., may be discharged and changed for fresh. The noxious qualities of bad air have been long known; and no one has taken greater pains to set the mischief arising from foul air in a proper light than Dr. Hales; who also proposed an easy and effectual remedy by the use of his ventilators; his account of which was read to the Royal Society in May 1741. In the November following M. Triewald, military architect to the king of Sweden, informed Dr. Mortimer, secretary to the Royal Society, that he had in the preceding spring invented a machine for the use of the king's men of war, to draw out the bad air from under the decks, the least of which exhausted 36,172 cubic feet of air in an hour, or at the rate of 21,732 tons in twenty-four hours. In 1742 he sent one of them, formed for a sixty gun ship to France; which was approved of by the Royal Academy of Sciences at Paris; and the king of France ordered all the men of war to be furnished with these ventilators.

VENTILATION. The purity of the atmosphere is a subject of considerable importance, and one that should form a part of the medical police of a commercial country. In the crowded manufacturing cities of Great Britain we find steam engine furnaces continually pouring forth their deleterious vapors so as to darken and pollute the surrounding atmosphere.

The process of ventilation that is going on naturally in the higher regions of the air, as well as the forced ventilation in common buildings, has been fully examined under the articles PNEUMATICS and SPECIFIC GRAVITY, and it remains for us now to illustrate the most perfect species of under-ground ventilation that has yet been suggested. It was originally proposed by Mr. John Taylor of mining celebrity.

Next in importance to the means employed for draining underground works for water may be reckoned those which are intended to afford a supply of pure air, sufficient to enable the workmen to continue their operations with ease and safety to themselves, and to keep up undiminished the artificial light upon which they depend.

It is well known, indeed, to all who are practically engaged in concerns of this kind, that men are frequently obliged to persevere in their labor where a candle will scarcely burn, and where not only their own health materially suffers in the end, but their employers are put to considerable additional expense by the unavoidable hinderance and the waste of candles and other materials.

We mean to confine the following remarks to such mines as are worked upon metalliferous veins. We find, then, that a single shaft, not communicating by levels to another, can hardly be sunk to any considerable depth, nor can a level (or, as the foreign miners call it, a gallery) be driven horizontally to any great distance without some contrivance being had recourse to for procuring currents of air to make up the deficiency of oxygen, which is so rapidly consumed by respiration and combustion in situations like these, where otherwise the whole remains in nearly a stagnant condition.

We are here unacquainted with the rapid production of those gases, which occasionally in the collieries are the cause of such dreadful effects; such as hydrogen gas, or the fire-damp, carbonic acid, or the choke-damp; the inconvenience we experience takes place gradually as we recede from the openings to the atmosphere, and seems to arise solely from the causes before assigned, though it is found to come on more rapidly in certain situations than in others.

The most obvious remedy, and that which is most frequently resorted to, is the opening a communication either to some other part of the mine, or to the surface itself, and as soon as this is done the ventilation is found to be complete, by the currents which immediately take place, often with considerable force, from the different degrees of temperature in the subterranean and upper atmospheres; and these currents may be observed to change their directions as the temperatures alternate.

The great objection to this mode of curing the evil is the enormous expense with which it is most commonly attended. In driving a long level, or tunnel, for instance, it may happen to be at a great depth under the surface, and the intervening rock of great hardness; in such a case every shaft which must be sunk upon it for air alone, where not required (as often they might not) to draw up the waste, would cost several hundred pounds; or in sinking a shaft it may be necessary, at an expense not much less, to drive a level to it from some other for this purpose alone.

To avoid this, recourse has been had to dividing the shaft or level into two distinct parts, communicating near the part intended to be ventilated, so that a current may be produced in opposite directions on each side the partition; and this, where room is to be spared for it, is often effectual to a certain extent. It is found however to have its limits at no very great distance, and the current at best is but a feeble one, from the nearly equal states of heat in the air on each side. The only scheme beside these has hitherto been to force down a volume of purer air, through a system of pipes placed for the

purpose, and a variety of contrivances have been devised for effecting this; most of them are so old that they may be found described in Agricola's work *De Re Metallica*. The most common are by bellows worked by hand; by boxes or cylinders of various forms placed on the surface with a large opening against the wind, and a smaller one communicating with the air-pipes by a cylinder and piston working in it, which, when driven by a sufficient force, has great power; but the cheapest and most effectual scheme for this purpose, where circumstances will admit of its being applied, is one adopted some time since in the tunnel of the Tavistock canal. It is by applying the fall of a stream of water for this purpose, and it has been long known that a blast of considerable strength may be obtained in this manner, which has the advantage of being constant and self-acting. The stream being turned down a perpendicular column of pipes, and dashing in at a vessel so contrived as to let off the water one way, with an opening at another part for the air, which, being pressed into it by the falling water, may be conveyed in any direction, and will pass through air-pipes with a strong current, which will be found efficacious in ventilating mines in many instances, as it has likewise, in some cases, been sufficient for urging the intensity of fires for the purposes of the forge. It is easily procured where a sufficient fall is to be had, and the perpendicular column can be so fixed as that the water from the bottom may pass off, while the air is forced into a pipe branching from the air-vessel, and which is to be continued to the part of the mine where the supply of fresh air is required.

We have found, however, that the forcing into vitiated air a mixture of that which is purer, even when the best means are used, though a measure which affords relief, is not in bad cases a complete remedy; and where the operation depends on manual labor, or any means that are not unremitting in their action, it becomes quite ineffectual. The foul air, charged with the smoke of gunpowder used in blasting, and which it strongly retains, is certainly meliorated by the mixture of pure air, but is not removed. While the blast continues, some of it is driven into the other parts of the mine; but when the influx of pure air ceases it returns again, or if during the influx of pure air a fresh volume of smoke be produced by explosions, which are constantly taking place, it is not until some time afterward that it becomes sufficiently attenuated for the workmen to resume their stations with comfort.

A consideration of these circumstances led an ingenious engineer to think that the usual operation of all ventilating engines ought to be reversed, to afford all the advantages that could be desired; that, instead of using the machines which serve as condensers, exhausters should be adopted; and thus, instead of forcing pure air into that in a vitiated state, a complete remedy could only be had by pumping out all that was impure as fast as it came so.

Many modes of doing this suggested themselves to Mr. Taylor by the alteration of the machines commonly applied, and by producing an

ascending stream of air through pipes by a furnace constructed for the purpose. The latter mode would however have been here expensive in fuel, as well as in attendance; and the others required power to overcome the friction of pistons, and so on, or considerable accuracy in construction.

Mr. Taylor at last erected a machine which, while it is so simple in construction, and requires so small an expense of power, is so complete in its operation, and its parts are so little liable to be injured by wear, that nothing more can be desired, where such a one is applied. This engine bears a considerable resemblance to Mr. Pepys's gazometer; and the machine may be as well placed at the bottom of the shaft as at the top, and that in either case it is proper to fix it upon a floor, which may prevent the return of the foul air into the mine, after being discharged from the exhauster; this floor may be furnished with a trap door to be opened occasionally for the passage of buckets through it. The exhausting-cylinder is made of cast-iron, open at the bottom and suspended over the air-pipe, immersed some way in the water. It is furnished with a wooden top, in which is an opening fitted with a valve likewise opening upwards. The exhausting cylinder has its motion up and down given to it by a bob connected to any engine by an horizontal rod, and the weight of the cylinder is balanced, if necessary, by a counterpoise.

FIG. 1, PLATE III. of *Mining* presents a sectional view of the apparatus in which C is the water tank, E the exhauster furnished with a valve at F, and supported at the top by the arm G. Motion is communicated by the rod H, the exhausting vessel being balanced by the weight I. The pipe B, is brought from the bottom of the mine by the shaft A.

The quantity of air exhausted is calculated of course from the area of the bore of the cylinder and the length of the stroke.

The dimensions which Mr. Taylor has found sufficient for large works are as follows:—The bore of the exhausting cylinder two feet. The length six feet, so as to afford a stroke of four feet. The pipes which conduct the air to such an engine ought not to be less than six-inch bore. The best rate of working is from two to three strokes a minute; but, if required to go much faster, it will be proper to adapt a capacious air-vessel to the pipes near the machine, which will equalise the current pressing through them.

A small engine to pump out two gallons at a stroke, which would be sufficient in many cases, could be worked by a power equal to raising a very few pounds weight, as the whole machine may be put into complete equilibrium before it begins to work, and there is hardly any other friction to overcome but that of the air passing through the pipes.

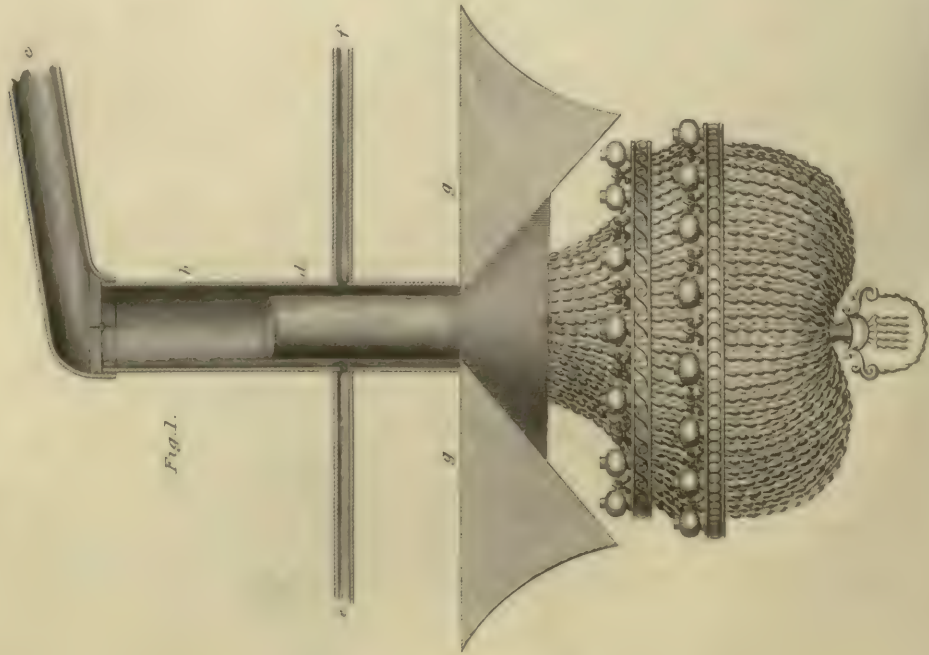
The end of the tunnel of the Tavistock canal, which it was Mr. Taylor's object to ventilate, was driven into the hill to a distance of nearly 300 yards from any opening to the surface, and being at a depth of 120 yards, and all in hard schistus rock, air-shafts would have been attended with an enormous expense; so that the tun-





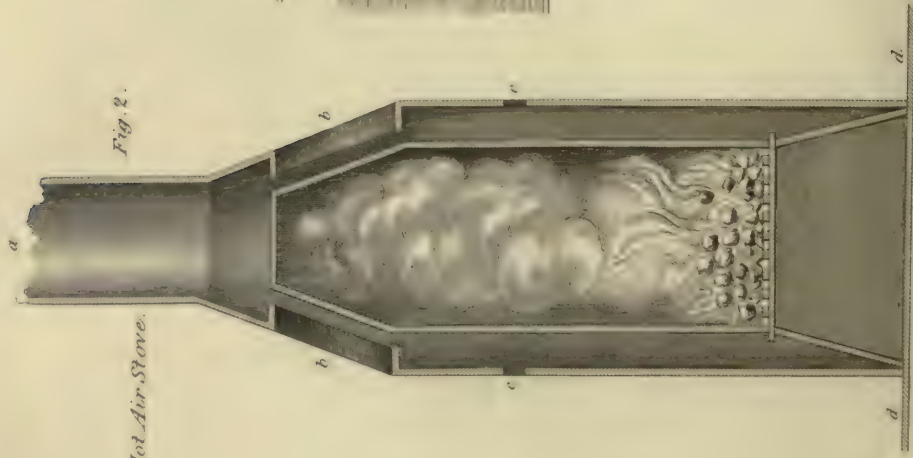
Ventilation.

Fig. 1.



Hot Air Stove.

Fig. 2.



Jenk's Improved Ball Valve.

Fig. 3.

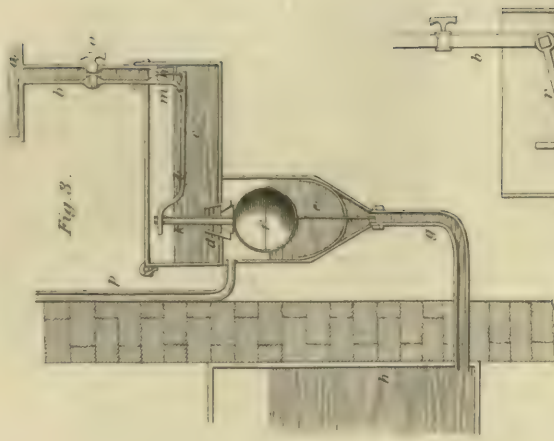
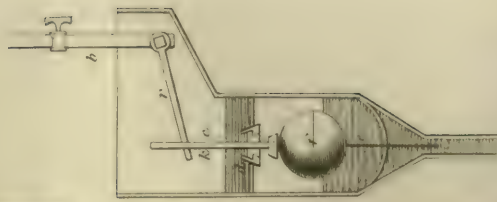


Fig. 4.





nel being a long one, it was most desirable to sink as few as possible, and of course at considerable distances from each other.

Within a very short time after the engine began to work, the superiority of its action over those formerly employed was abundantly evident. The whole extent of the tunnel, which had been uninterruptedly clouded with smoke for some months before, and which the air that was forced in never could drive out, now became speedily so clear that the day light and even objects at its mouth were distinctly seen from its farthest end. After blowing up the rock, the miners could instantly return to the place where they were employed, unimpeded by the smoke, of which no appearance would remain underground in a very few minutes, while it might be seen to be discharged in gusts from the valve at the top of the shaft. The constant current into the pipe at the same time effectually prevented the accumulation of air unfit for respiration. The influx of air, from the level into the mouth of the pipe, rushes with such force as instantly to extinguish the flame of a large candle; and any substance, applied so as to stop the orifice, is held tight by the outward pressure.

Two similar engines have been since constructed for other parts of the same tunnel, and have in every respect answered the purpose for which they were designed. The original one is worked by the small stream of water, by means of a light overshot wheel twelve feet in diameter, and about six inches in breast.—The two others are attached to the great overshot-wheel, which pumps the water from the shafts which are sinking upon the line, and, as their friction is comparatively nothing, this may be done in any case, with so little waste of power for this purpose as not to be an object of consideration, even if the power be derived from more expensive means.

The size of the exhauster may always be proportioned to the demand for air, and, by a due consideration of this circumstance, this engine may be effectually adapted not only to mines and collieries, but also to manufactories, work-houses, hospitals, prisons, ships, and so on. Thus, if it were required to ventilate a shaft of a mine, or a single level, which is most frequently the case where three men are at work at one time, and we allow that those three men vitiate each twenty-seven cubic inches and a half of air per minute (as determined by the experiments of Messrs. Allen and Pepys); and allowing, farther, that their candles vitiate as much as the men, there will be six times twenty-seven cubic inches and a half of air to be drawn out in a minute, equal to 165. Now a cylinder five inches in diameter, working with a stroke of nine inches, will effect this by one stroke in a minute, though it would certainly be advisable to make it larger.

Mr. Vallance's late patent for ventilating houses, is entitled to a place in our present article. The specification of this patent, after expatiating at considerable length upon the dangerous consequences to the health of individuals, as well as the unpleasant sensations produced by the extreme heat of crowded rooms, and also upon the present ineffectual modes of ventilating

places intended for public assemblage, proposes the following methods to be resorted to under existing circumstances, viz. in the first instance, simply for the supply of pure air, to inject it in its natural state, by means of a pump from the atmosphere into the crowded room; secondly, for alleviating the extreme heat by cooling the air, before it is conveyed into the room; and, thirdly, when it may be necessary for warming the place, to heat the air previously to its being injected.

For this purpose it is designed to erect a condensing or injecting air pump, or large bellows, in some convenient part of an adjacent building, from which a pipe is laid, conducting the air round the room, behind the skirting board; which pipe is to have minute openings to allow the passage of air in small streams, so as not to annoy the company. In the event of the natural state of the atmosphere being too warm to afford the necessary cool refreshment, it is proposed that the air, thus injected, should be condensed in pipes or other vessels, and deprived of part of its caloric (matter of heat). Several modes are proposed to effect this, one of which is to force it through cold water, or through pipes surrounded with cold water. When the temperature of the atmosphere is too cold, the air is proposed to be passed through hot water or heated pipes.

The pump or bellows to be employed for this purpose must be large, as the quantity of air required to be injected is calculated at one entire foot for each person present per minute. The piston of the pump is proposed to be worked by a contrivance similar to the pile driving machinery, with a weight of about 1000 lbs. The windows and all other parts are intended to be rendered air-tight by luting; the only exit passage, or ventilator, is to be an aperture in the ceiling, from which a pipe is to lead to a cistern or reservoir without the building, making a water-valve, through which the air is to make its escape when sufficiently condensed by the pumping before mentioned.

A new and beautiful mode of ventilation, as adopted in some large buildings, is shown in the plate IV. *Miscellanies*, fig 1., G G is a section of the upper part of the roof, and the heat of the chandelier suspended beneath, causes a continual upward current of air, which, ascending by the pipe *b*, finds its way above the roof. The horizontal pipes *e* and *f* are continued to those remote parts of the building which would be inaccessible to the ordinary ventilating processes. The air being rarefied in the ascending pipe, carries with it those portions of air in the neighbourhood of the other pipes, and by this means it is most effectually withdrawn. The ventilation being rendered completely effectual by a new supply from beneath.

VENTRICLE, *n. s.* *Fr. ventricule*; *Lat. ventriculus*. The stomach; a small cavity in the body, and particularly of the heart.

Knowest thou how blood, which to the heart doth flow,  
Doth from one *ventricle* to the other go? *Donne*.  
Whether I will or not, while I live, my heart beats, and my *ventricle* digests what is in it. *Hale*.

The heart, being a muscular part, the sides are composed of two orders of fibres running spirally from base to top, contrarily one to the other; and, so being drawn or contracted, constringe the *ventricles*, and strongly force out the blood. *Ray.*

The mixture of blood and chyle, after its circulation through the lungs, being brought back into the left *ventricle* of the heart, is drove again by the heart into the aorta, through the whole arterial system. *Arbuthnot.*

**VENTRILOQUISM**, **VENTRILOQUUS**, compounded of *venter*, belly, and *loquor*, I speak, *gastriloquus*, or *engastrimythus*, is a term applied to persons who speak inwardly; having a peculiar art of forming speech, by drawing the air into the lungs; so that the voice, proceeding out of the thorax, to a by-stander seems to come from some distance, or from some other person.

Some traces of the art of ventriloquism are to be found in the writings of the ancients; but many more are to be discovered there, if we adopt the abbé de la Chapelle's opinion, that the responses of many of the ancient oracles were actually delivered by persons possessing this quality, so very capable of being applied to the purposes of priestcraft and delusion. La Chapelle having heard many surprising circumstances related concerning one M. St. Gilles, a grocer at St. Germain-en-Laye, near Paris, whose powers as a ventriloquist had given occasion to many singular and diverting scenes, formed the resolution of seeing him. Being seated with him on the opposite side of a fire in a parlor on the ground-floor, and very attentively observing him, the abbé, after half an hour's conversation with M. St. Gilles, heard himself called, on a sudden, by his name and title, in a voice that seemed to come from the roof of a house at a distance; and, whilst he was pointing to the house from which the voice had appeared to him to proceed, he was yet more surprised by hearing the words 'it was not from that quarter,' apparently in the same kind of voice as before, but which now seemed to issue from under the earth, at one of the corners of the room. In short, this factitious voice played, as it were, every where about him, and seemed to proceed from any quarter, or distance, from which the operator chose to transmit it to him. To the abbé, though conscious that the voice proceeded from the mouth of M. St. Gilles, he appeared absolutely mute, while he was exercising this talent; nor could any change in his countenance be discovered. But he observed that M. St. Gilles presented only the profile of his face to him, while he was speaking as a ventriloquist. On another occasion, M. St. Gilles sought for shelter from a storm in a neighbouring convent; and finding the community in mourning, and enquiring the cause, he was told that one of their body much esteemed by them had lately died. Some of the religious attended him to the church, and, showing him the tomb of their deceased brother, spoke very feelingly of the scanty honors that had been bestowed on his memory; when suddenly a voice was heard, apparently proceeding from the roof of the choir, lamenting the situation of the defunct in purgatory, and reproaching the brotherhood with their want of zeal on his account. The whole com-

munity being afterwards convened into the church, the voice from the roof renewed its lamentations and reproaches, and the whole convent fell on their faces, and vowed a solemn reparation. Accordingly they first chaunted a *de profundis* in full choir, during the intervals of which the ghost occasionally expressed the comfort he received from their pious exercises and ejaculations in his behalf. The prior, when this religious service was concluded, entered into a serious conversation with M. St. Gilles, and inveighed against the incredulity of our modern sceptics, and pretended philosophers, on the article of ghosts and apparitions; and St. Gilles found it difficult to convince the fathers that the whole was a deception.

Other instances of M. St. Gilles's talents are related in the *Le Ventriloque* of M. de la Chapelle; and the abbé, in the course of his enquiries, was informed that the baron de Mengen, a German nobleman, possessed this art in a very high degree. He also relates, from Brodeau, a learned critic in the sixteenth century, two singular feats performed by a capital ventriloquist in his time, called Louis Brabant, valet de chambre to Francis I. Louis had fallen in love with a beautiful and rich heiress, but was rejected by the parents as a low unsuitable match. However, the father dying, he visits the widow; and, on his first appearance in the house, she hears herself accosted in a voice resembling that of her dead husband, and which seemed to proceed from above. 'Give my daughter in marriage to Louis Brabant, who is a man of great fortune and excellent character; I now endure the inexpressible torments of purgatory, for having refused her to him; obey this admonition, and I shall be soon delivered; you will provide a worthy husband for your daughter, and procure everlasting repose to the soul of your poor husband.' The dread summons, which had no appearance of proceeding from Louis, whose countenance exhibited no change, and whose lips were close and motionless, was instantly complied with; but the deceiver, in order to mend his finances for the accomplishment of the marriage-contract, applies to one Cornu, an old and rich banker at Lyons, who had accumulated immense wealth by usury and extortion, and was haunted by remorse of conscience. After some conversation on demons and spectres, the pains of purgatory, &c., during an interval of silence, a voice is heard like that of the banker's deceased father, complaining of his dreadful situation in purgatory, and calling upon him to rescue him from thence, by putting into the hands of Louis Brabant, then with him, a large sum for the redemption of Christians in slavery with the Turks; threatening him at the same time with eternal damnation, if he did not thus expiate his own sins. Upon a second interview, in which his ears were saluted with the complaints and groans of his father, and of all his deceased relations, imploring him for the love of God, and in the name of every saint in the calendar, to have mercy on his own soul and others, Cornu obeyed the heavenly voice, and gave Louis 10,000 crowns, with which he returned to Paris, and married his mistress!

From baron de Mengen's account of himself



and the observations made of M. de la Chapelle in his frequent examinations of St. Gille, it seems that the factitious voice produced by a ventriloquist does not (as the etymology of the word imports) proceed from the belly, but is formed in the inner parts of the mouth and throat. The art, according to this author, does not depend on a particular structure or organization of these parts, but may be acquired by almost any ardently desirous of attaining it, and determined to persevere in repeated trials. The judgments we form concerning the situation and distance of bodies, by means of the senses mutually assisting and correcting each other, seem to be entirely founded on experience; and we pass from the sign to the thing signified by it immediately, or at least without any intermediate steps perceptible to ourselves. Hence it follows that if a man, though in the same room with another, can by any peculiar modification of the organs of speech produce a sound which in faintness, tone, body, and every other sensible quality, perfectly resembles a sound delivered from the roof of an opposite house, the ear will naturally, without examination, refer it to that situation and distance; the sound which the person hears being only a sign, which from infancy he has been accustomed, by experience, to associate with the idea of a person speaking from a house-top. A deception of this kind is practised with success on the organ, and other musical instruments. Rolandus, in his *Aglossostomographia*, mentions, that if the mediastinum, which is naturally a single membrane, be divided into two parts, the speech will seem to come out of the breast; so that the by-standers will fancy the person possessed.

Mr. Gough, in the *Manchester Memoirs*, vol. v. part 2, p. 622, London 1802, investigates the method whereby men judge by the ear of the position of sonorous bodies relative to their own persons. This author observes in general that a sudden change of direction in sound, our knowledge of which, he conceives, does not depend on the impulse in the ear, but on other facts, will be perceived, when the original communication is interrupted, provided there be a sensible echo. This circumstance will be acknowledged by any person who has had occasion to walk along a valley, intercepted with buildings, at the time that a peal of bells was ringing in it. The sound of the bells, instead of arriving constantly at the ears of a person so situated, in its true direction, is frequently reflected in a short time from two or three different places. These deceptions are in many cases so much diversified by the successive interpositions of fresh objects, that the steeple appears, in the hearer's judgment, to perform the part of an expert ventriloquist on a theatre, the extent of which is adapted to its own powers, and not to those of the human voice. The similarity of effect which connects this phenomenon with ventriloquism convinced the author, whenever he heard it, that what we know to be the cause in one instance is also the cause in the other, viz. that the echo reaches the ear, while the original sound is intercepted by accident in the case of the bells, but by art in the case of the ventriloquist.

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It is the business of a ventriloquist to amuse his admirers with tricks resembling the foregoing delusion; and it will be readily granted that he has a subtle sense, highly corrected by experience, to manage, on which account the judgment must be cheated as well as the ear. This can only be accomplished by making the pulses, constituting his words, strike the heads of his hearers, not in the right lines that join their persons and his. He must therefore know how to disguise the true direction of his voice, because the artifice will give him an opportunity to substitute almost any echo he chooses in the place of it. But the superior part of the human body has been already proved to form an extensive seat of sound, from every point of which the pulses are repelled as if they diverged from a common centre. This is the reason why people, who speak in the usual way, cannot conceal the direction of their voices, which in reality fly off towards all points at the same instant. The ventriloquist, therefore, by some means or other, acquires the difficult habit of contracting the field of sound within the compass of his lips, which enables him to confine the real path of his voice to narrow limits. For he who is master of the art has nothing to do but to place his mouth obliquely to the company, and to dart his words, if the expression may be used, against an opposing object, whence they will be reflected immediately so as to strike the ears of the audience from an unexpected quarter, in consequence of which the reflector will appear to be the speaker. Nature seems to fix no bounds to this kind of deception, only care must be taken not to let the path of the direct pulses pass too near the head of the person who is to be played upon; but the divergency of the pulses make him perceive the voice itself.

VENTURE, *n. s., v. n., & v. a.*

VENTURESOME, *adj.*

VENTURESOMELY, *adv.*

VENTUROUS, *adj.*

VENTUROUSLY, *adv.*

VENTUROUSNESS, *n. s.*

Fr. *aventure*. A hazard; undertaking of chance or danger;

hap; stake; 'at a venture' is at hazard; without consideration: to venture is, to dare; run a hazard, taking *at* and *on* as prepositions: also as a verb active to put to hazard: venturous and venturesome mean, daring; bold; fearless of hazards: the adverbs and noun substantive following correspond.

You have made but an estimate of those lands at a venture, so as it should be hard to build any certainty of charge upon it.

Spenser.

My ventures are not in one bottom trusted,

Nor to one place. *Shakspeare. Merchant of Venice.*

That slander is found a truth now; and held to certain,

*Shakspeare.*

A man were better rise in his suit; for he that would have ventured at first to have lost the suitor, will not in the conclusion lose both the suitor and his own former favour.

Bacon.

The king resolved with all speed to assail the rebels, and yet with that providence and surety as should leave little to venture or fortune.

*Id.*

Siege was laid to the fort by the Lord Grey, then deputy, with a smaller number than those were within the fort; venturously indeed; but haste was

2 A

made to attack them before the rebels came in to them.

*Id.*

Charles was guided by mean men, who would make it their master-piece of favour to give venturous counsels, which no great or wise man would.

*Id.*

Thrice happy you, that look as from the shore,  
And have no venture in the wreck to see. *Daniel.*

He paused not; but with venturous arm  
He plucked, he tasted. *Milton's Paradise Lost.*

A bargain at a venture made  
Between two partners in a trade. *Hudibras.*

I never yet the tragic strain essayed,  
Deterred by that inimitable maid:

And, when I venture at the comic stile,  
Thy scornful lady seems to mock my toil. *Waller.*

Her coming into a place, where the walls and  
ceilings were whited over, much offended her sight,  
and made her repent her venturousness.

*Boyle on Colours.*

The venturous humour of our mariners costs this  
island many brave lives every year. *Temple.*

I am so overjoyed, I can scarce believe I am at  
liberty; like a bird that has often beaten her wing  
in vain against her cage, dare hardly venture out,  
though she see it open. *Dryden.*

Here was no scampering away at a venture, without  
fear or wit. *L'Estrange.*

When infinite happiness is put in one scale,  
against infinite misery in the other; if the worst  
that comes to the pious man, if he mistakes, be the  
best that the wicked can attain to, if he be in the  
right, who can, without madness, run the venture?

*Locke.*

Though they had ideas enough to distinguish gold  
from a stone, yet they but timorously ventured on  
such terms as aurietas and saxietas. *Id.*

If Ahab be designed for death, though a soldier  
in the enemy's army draws a bow at a venture, yet  
the sure unerring directions of providence shall  
carry it in a direct course to his ear. *South.*

Origen, mentioning their being cast out of Jerusa-  
lem, ventures to assure them that they would never  
be re-established, since they had committed that  
horrid crime against the Saviour of the world.

*Addison on the Christian Religion.*

Turco-Papismus I would desire him to read,  
before he ventures at capping of characters.

*Atterbury.*

Savage pirates seek, through seas unknown,  
The lives of others, venturous of their own. *Pope.*

VENUE, in law, vicinetum or visnetum, a  
neighbouring place, locus quem vicini habitant:  
the place whence a jury are to come for trial of  
causes. *F. N. B. 115.*

The want of a venue is only curable by such  
a plea as admits the fact, for the trial whereof it  
was required to lay a Venue. 3 Salk. 381.  
Where the action could only have arisen in a  
particular county it is local, and the venue (by  
original) must be laid in that country (or where  
several facts material to an action, in its nature  
local, arise in different counties, the venue must  
be laid in one or other of those counties); for, if  
it be laid elsewhere, the defendant may demur  
to the declaration; or the plaintiff, on the gene-  
ral issue, will be nonsuited at the trial. Where  
the action might have arisen in any county, it  
is transitory, and the plaintiff may in general  
lay the venue wherever he pleases; subject to  
its being changed by the court, if not laid in the  
very county where the action arose. Thus, in an  
action upon a lease for rent, &c., founded on the

privy of estate, as in debt by the assignee or  
devisee of the lessor against the lessee; or by  
the lessor, or his personal representatives, against  
the assignee of the lessee; or against the executor  
of the lessee, in the debt and detinet; or in  
covenant, by the grantee of the reversion against  
the assignee of the lessee; the action is local,  
and the venue must be laid in the county where  
the estate lies. But in an action upon a lease  
for rent, &c., founded on the privy of contract;  
as in debt by the lessor against the lessee, or his  
executor in the detinet only; or in covenant, by  
the lessor or grantee of the reversion against the  
lessee, the action is transitory, and the venue  
may be laid in any county, at the option of the  
plaintiff. *Tidd's Pract. K. B.*

There are, however, some actions of a transi-  
tory nature wherein the venue must be laid in  
the county where the facts which are the ground  
of the action were committed, and not elsewhere.  
Such are all actions upon penal statutes, stats.  
31 Eliz. c. 5, sect. 2: 21 Jac. I. c. 4, sect. 2. For  
the general effect of these acts, as connected  
with each other, see *Barber v. Tison*, 2 Maul.  
and Selw. 429.; and that the stat. 31 Eliz. ex-  
tends to penal actions, given by subsequent sta-  
tutes, 9 East's Rep. 296.

VENUS, in mythology, the goddess of love  
and beauty. Cicero mentions two other deities  
of this name. Venus, styled Urania and Celestis;  
and the Venus Pandemos or Popularis, the  
wife of Vulcan, and the goddess of wanton and  
effeminate love. To the first the Pagans ascribed  
no attributes but such as were agreeable to the  
strictest chastity and virtue; and of this deity  
they admitted no corporeal resemblance, she be-  
ing only represented by the form of a globe,  
ending conically. Her sacrifices were termed  
nephalia, on account of their sobriety. To her  
honey and wine were offered, and no animal ex-  
cept the heifer; and on her altars the wood  
of figs, vines, or mulberries, were not suffered  
to be burnt. The Romans dedicated a temple  
to this goddess, to whom they gave the name  
of Verticordia; because she turned the hearts  
of lewd women, and inspired modesty and vir-  
tue. But the most famous of these goddesses  
is the wife of Vulcan; who is represented as  
springing from the froth raised by the genitals  
of Saturn, when cut off by Jupiter and thrown  
into the sea. As soon as she was formed, she  
was laid in a beautiful shell embellished with  
pearl, and wafted by gentle zephyrs to the isle of  
Cytherea, whence she sailed to Cyprus. At her  
landing, flowers rose beneath her feet; she was  
received by the Hours, who braided her hair with  
golden fillets; and then wafted her to heaven,  
where her charms appeared so attractive that  
most of the gods desired her in marriage; but  
Vulcan, by the advice of Jupiter, gained posses-  
sion by putting poppies into her nectar. As  
Venus was the goddess of love and pleasure, the  
poets have been lavish in the description of her  
beauties; and the painters and statuaries have  
endeavoured to give her the most lovely form;  
and her son Cupid is her inseparable companion.  
She was honored as the mother of Hymen,  
Cupid, Æneas, and the graces, and was passion-  
ately fond of Adonis and Anchises. This god-



dess was principally worshipped at Paphos and Cyprus; and the sacrifices offered to her were white goats and swine, with libations of wine, milk, and honey. Her victims were crowned with flowers or wreaths of myrtle.

VENUS, in astronomy. See ASTRONOMY and PNEUMATICS.

VENUS, in zoology, a genus of insects belonging to the order of vermes testacea. This animal is a tethys: the shell is bivalve; the hinge with three teeth near each other, one placed longitudinally and bent inwards. There are many species; of which the most remarkable is, *V. mercenaria*, or the commercial, with a strong, thick, weighty shell, covered with a brown epidermis; pure white within; slightly striated transversely. Circumference above eleven inches. These are called in North America clams. They differ from other species only in having a purple tinge within. Wampum or Indian money is made of them.

VENUS'S COMB. See SCANDIX.

VENUS'S FLY-TRAP. See *DIONEÆ MUSCIPULA*.

VENUS'S LOOKING GLASS. See *CAMPANULA*.

VENUS'S NAVAL-WORT. See *CYNOGLOSSUM*.

VEPRECULÆ, diminutive from *vepres*, a briar or bramble; the thirty-first order in Linnaeus's Fragments of a Natural Method. See BOTANY.

VERA CRUZ, a province of Mexico, situated under the burning sun of the tropics, and extending along the Mexican Gulf, from the Rio Baraderas (or de los Lagartos) to the great river of Panuco, which rises in the metalliferous mountains of San Luis Potosi. Hence this intendency includes a very considerable part of the eastern coast of New Spain. Its length, from the bay of Terminos near the island of Carmen, to the small port of Tampico, is 210 leagues; while its breadth is only in general from twenty-five to twenty-eight leagues. It is bounded on the east by the peninsula of Merida; on the west by the intendencies of Oaxaca, Puebla, and Mexico; and on the north by the colony of New Santander.

The admirable order with which different tribes of vegetables rise above one another by strata, as it were, is nowhere more perceptible than in ascending from the port of Vera Cruz to the table-land of Perote; and the inferior limit of oaks warns the colonist who inhabits the central table-land how far he may descend towards the coast, without dread of the mortal disease of the yellow fever.

The province is enriched by nature with the most precious productions. In the ever-green forests, at the foot of the Cordillera, grows the tree of which the odoriferous fruit is employed for perfuming chocolate. The myrtle is produced in the forests which extend towards the river of Baraderas, in the eastern part of the intendency of Vera Cruz. The cocoa of Acayucan would be in request if the natives were to apply themselves more assiduously to the cultivation of cocoa trees. On the eastern and southern declivities of the Pic d'Orizaba, in the valleys which extend towards the small town of Cordoba, tobacco of an excellent quality is cultivated, which yielded an annual revenue to the crown of Spain, previous to the late distractions of the country,

of more than 18,000,000 of francs. The simalax, of which the root is the true sarsaparilla, grows in the humid and umbrageous ravines of the Cordillera. The cotton of the coast of Vera Cruz is celebrated for its fineness and whiteness. The sugar cane yields nearly as much sugar as in the island of Cuba, and more than in the plantations of St. Domingo. Hence sugar and cotton plantations have been multiplying in the province of Vera Cruz, especially since the fatal events at St. Domingo, which have given a great stimulus to industry in these parts of America.

The intendency contains within its limits two colossal summits, of which one, the volcano of Orizaba, is, after the Popocatepetl, the most elevated mountain of New Spain. The other summit, the Cofre de Perote, according to the measurement of Humboldt, is nearly 1312 feet higher than the Peak of Teneriffe. It serves as a signal to the sailors who put in at Vera Cruz. The small volcano of Tuxtla is situated four leagues from the coast, south-east from the port of Vera Cruz, near the Indian village of Santiago de Tuxtla. There was a very considerable eruption of this volcano on the 2d of March 1793, during which the roofs of the houses of Oaxaca, Vera Cruz, and Perote, were covered with volcanic ashes. At Perote, which is 170 miles distant, in a straight line from the volcano of Tuxtla, the subterraneous noises resembled heavy discharges of artillery. In the northern part of the intendency of Vera Cruz, at two leagues distance from the great Indian village of Papantla, there is a pyramidal edifice of great antiquity. It remained unknown to the first conquerors, being situated in the midst of a thick forest, and concealed by the Indians, who held it in great veneration. It is constructed of immense stones of a porphyry-like shape. Mortar is distinguishable in the seams. The edifice, however, is not so remarkable for its size, as for its symmetry, the polish of the stones, and the great regularity of their cut. The base is an exact square, each side being eighty-two feet in length. The perpendicular height appears not to be more than from fifty-two to sixty-five feet. This monument, like all the other Mexican monuments, is composed of several stages. Six are still distinguishable, and a seventh appears to be concealed by the vegetation with which the sides of the pyramid are covered. A great stair of fifty-seven steps conducts to the top, where the human victims were sacrificed. On each side is a small stair. The facing of the stones is adorned with hieroglyphics, in which serpents and crocodiles, carved in relieve, are discernible. Each story contains a great number of square niches, symmetrically distributed. In the first story there are twenty-four on each side, in the second twenty, and in the third sixteen. The number of these niches in the body of the pyramid is 366, and there are twelve in the stairs towards the east. The intendency of Vera Cruz has no mines of any importance. Those of Zomelahuacan, near Jalucujo, are almost abandoned. According to the latest enumeration, Vera Cruz contains 156,000 inhabitants. The extent of its surface is 4141 square leagues, and there are thirty-eight inhabitants to each league.

**VERA CRUZ**, the principal sea-port of Mexico, fronts the sea in a semicircle, and is enclosed with a simple wall or parapet, six feet high and three feet broad, surmounted by a wooden pallisade in great decay. On the shore, to the south-east and north-west, are two redoubts, with some cannon to defend the port, which is not commodious, being merely a bad anchorage among shallows. Opposite, at the distance of 400 fathoms, is an islet, on which stands the castle of St. Juan d'Ulloa, fortified with 300 pieces of cannon. From forty to sixty ships of war, or 100 merchantmen might anchor here, in from four to ten fathoms; but the northerly winds are terrible, and often drive vessels on shore. In the rainy season the marshes on the north are haunted by alligators, from seven to eight feet in length, and so strong as to be able to draw an ox under the water. Vera Cruz is the centre of European and West India commerce, receiving also great quantities of East Indian produce, by way of Acapulco, from the Philippines. The city is regularly built; its streets are broad and straight, and it is inhabited by well informed merchants. Its interior police has been improved during these few years. It is situated in an arid plain, without running water, and on which the north winds, which blow with dreadful impetuosity from October till April, have formed hills of moving sand. These downs change their form and situation every year. They are from twenty-six to thirty-eight feet in height, and contribute very much, by the reverberation of the sun's rays, and by the high temperature which they acquire during the summer months, to increase the suffocating heat. The town being also surrounded with a high wall, there is little or no circulation of air. Between the city and the Aroyo Gavilan, in the midst of the sandy downs, are marshy grounds, covered with mangles and other brushwood; while the stagnant water of several small lakes occasions intermittent fevers among the natives. All the edifices are constructed of materials drawn from the bottom of the ocean; for no rock is to be procured in the environs of the city, although a good freestone has been lately brought from Campeachy. Water is found, on digging the sandy soil at the depth of nine feet and a half; but this water proceeds from the filtration of the marshes formed in the downs. It is rain water which has been in contact with the roots of vegetables, and is of a very bad quality. People in easy circumstances drink rain water, collected in cisterns; and the want of good water has for centuries past been regarded as one principal cause of the diseases of the inhabitants: in 1764 a project was formed for conducting part of the fine river of Xamapa to the port of Vera Cruz. Before surveying the ground, a dike or embankment was formed above the village of Xamapa, at an expense of £60,000; a stone aqueduct was next constructed, for a length of about 2000 feet; yet, notwithstanding these exertions and expense, the waters of the Xamapa are still more than twelve miles distant from the town. In the present state of things, the construction of this aqueduct is estimated to cost from £208,000 to £250,000; and it is only put off because it has been calculated that ten

public cisterns placed without the precincts of the city, would not altogether cost above £30,000, while they would be sufficient for a population of 16,000 souls, if each cistern contained a volume of water of 23,661 cubic feet. The habitual population of Vera Cruz, without including the militia and sea-faring people, is 16,000. It is 150 miles E. S. E. of Puebla.

**VERA PAZ**, a town and province of Guatemala, South America, bounded north by Chiapa and Yucatan, east by Honduras and the city and gulf of that name, south by Guatemala, and on the west by the same and Chiapa. It is about 120 miles in length, and seventy-four in extreme breadth. The country is rough and broken, but about half of the province is of a mild and benign temperature, and the other half hot, and abounding in mosquitoes. The rains here continue nine months in the year, and the province abounds in vegetable productions and cattle, and has many mountains covered with trees, and vast caverns, in which many rivers laving the province lose themselves. On its mountains and forests are large trees of excellent kinds of wood, imparting a balmy fragrance to the surrounding air; and amongst these we must note in particular the liquid amber of a thick and rough wood, and various kinds of balsams, and dragon plants, from which is extracted the gum called dragon's blood. Here are canes of 100 feet long, and of great thickness. The woods are thronged with animals and wild beasts: the largest of these is the danta, as big as a calf, though somewhat short, and thicker set in all its joints, which on the whole resemble those of the elephant. This animal is ferocious and terrible when irritated, and with its tusks destroys every thing it meets in its course, not excepting trees of considerable strength. Here are likewise lions, tigers, bears of an enormous size, cats, and mountain goats, monkeys of various kinds, wild boars, porcupines, squirrels, and a variety of other animals.

The trade of the province consists chiefly in drugs, cotton, cacao, honey, wool, &c.; and from its situation on the gulf of Honduras, might be rendered much more flourishing than it is. The gulf of Dolce or Dulce, a sort of large lake, but which communicates with the sea by means of the gulf of Amatique, lies on the eastern and southern part of Vera Paz, and seems placed there by nature to facilitate the commerce of the government of Guatemala.

**VERA PAZ**, the chief town of the above province, is situated on the Rio Coban, which falls into the gulf or lake of Dulce. 600 miles south-east of Mexico.

**VERACITY**, *n. s.* Lat. *verax*. Moral truth; physical truth; consistency or honesty of report.

When they submitted to the most ignominious and cruel deaths, rather than retract their testimony, there was no reason to doubt the *veracity* of those facts which they related. *Addition.*

**VERAGUA**, a province of Terra Firma, in South America, bounded on the north by the Caribbean Sea; east by the province of Darien in South America, which is separated from Veragua by the ridge of Canatagua; on the west by Costa Rica; and on the south by the great Pacific Ocean. Veragua is a mountainous, rugged



country, covered with vast forests, beautifully interspersed with luxuriant and fertile valleys, wherein are found various estates and grazing farms, well stocked with cattle, from the abundance of excellent pastures.

VERAGUA, ST. JAGO DE, the capital of the above province, is a handsome town, in a moist and warm climate, surrounded by a small district, which produces Indian corn, a root called yucca, of which they make bread, and plantains. Cattle and hogs are here also very numerous. The Indians in the vicinity dye their cottons, manufactured by themselves, with the juice of shell fish found in the bay of Salinas, in Costa Rica, and on the coast of Veragua, affording a rich and delicate purple. With this juice, and with gold, which they find in the hills, they carry on a trade with Panama and Guatemala.

VERATRIA, a new vegetable alkali, discovered lately by MM. Pelletier and Caventou, in the veratrum sabatilla or cevadilla, the veratrum album or white hellebore, and the colchicum autumnale or meadow saffron. The seeds of cevadilla, after being freed from an unctuous and acrid matter by ether, were digested in boiling alcohol. As this infusion cooled, a little wax was deposited; and the liquid being evaporated to an extract, redissolved in water, and again concentrated by evaporation, parted with its coloring matter. Acetate of lead was now poured into the solution, and an abundant yellow precipitate fell, leaving the fluid nearly colorless. The excess of lead was thrown down by sulphureted hydrogen, and the filtered liquor, being concentrated by evaporation, was treated with magnesia, and again filtered. The precipitate, boiled in alcohol, gave a solution, which, on evaporation, left a pulverulent matter, extremely bitter, and with decidedly alkaline characters. It was at first yellow, but by solution in alcohol, and precipitation by water, was obtained in a fine white powder. The precipitate by the acetate of lead gave, on examination, gallic acid; and hence it is concluded that the new alkali existed in the seed as a gallate.

Veratria was found in the other plants above-mentioned. It is white, pulverulent, has no odor, but excites violent sneezing. It is very acrid, but not bitter. It produces violent vomiting in very small doses, and, according to some experiments, a few grains may cause death. It is very little soluble in cold water. Boiling water dissolves about  $\frac{1}{1000}$  part, and becomes acrid to the taste. It is very soluble in alcohol, and rather less soluble in ether. It fuses at 122° Fahrenheit, and then appears like wax. On cooling it becomes an amber-colored translucent mass. Heated more highly, it swells, decomposes, and burns. Decomposed by oxide of copper, it gave no trace of azote. It acts on test papers like an alkali, and forms salts uncrystallisable by evaporation. The salts appear like a gum. The supersulphate only seems to present crystals. Strong solutions of these salts are partially decomposed by water. Veratria falls down, and the solution becomes acid. The bisulphate appears to consist of

|                |        |        |
|----------------|--------|--------|
| Veratria       | 93.725 | 100    |
| Sulphuric acid | 6.227  | 6.6441 |

The muriate is composed of

|               |         |        |
|---------------|---------|--------|
| Veratria      | 95.8606 | 100    |
| Muriatic acid | 4.1394  | 4.3181 |

Iodine and chlorine produce with veratria an iodate, hydriodate, chloride, and muriate.

VERATRUM, in botany, a genus of plants of the class of polygamia and order of monœcia, and in the natural system arranged under the tenth order, coronariæ. There is no calyx; the corolla has six petals; there are six stamina; the hermaphrodite flowers have three pistils and three capsules. There are three species, none of which are natives of Britain. The most important is the V. album, or white hellebore, a perennial root, about an inch thick, externally brown, internally white, and beset with many strong fibres; the stalk thick, strong, upright, hairy, and usually rises four feet in height; the leaves numerous, large, oval, entire, and of a yellowish green color, and surrounding the stem at its base: the flowers are greenish, and appear from June to August in very long, branched, terminal spikes. Every part of this plant is extremely acrid and poisonous. The ancients, though sufficiently acquainted with its virulency were not deterred from employing it internally in several diseases, especially those of a chronic and obstinate kind, as mania, melancholia, elephantiasis, &c. Veratrum has likewise been found useful in epilepsy and other convulsive complaints; but the diseases in which its efficacy seems least equivocal are those of the skin.

VERB, *n. s.* Fr. *verbe*; Lat. *verbum*. A part of speech signifying existence, or some modification thereof.

Men usually talk of a noun and a verb.

*Shakspeare.*

It was such a denial or confession of him as would appear in preaching: but this is managed in words and verbal profession.

*South.*

VERB, in grammar. See GRAMMAR.

|                          |  |
|--------------------------|--|
| VER'BAL, <i>adj.</i>     | } Fr. <i>verbal</i> ; Lat. <i>verbalis</i> . |
| VERBAL'ITY, <i>n. s.</i> |  |
| VER'BALLY, <i>adv.</i>   |  |

Spoken; oral; not written; full of words; merely literal; relating to a verb: the adverb and noun substantive correspond.

Made she no verbal quests?

—Yes; once or twice she heaved the name of father Pantingly forth, as if it prest her heart. *Shakspeare.*

I am sorry

You put me to forget a lady's manners,

By being so verbal.

*Id.*

Whosoever offers at verbal translation, shall have the misfortune of that young traveller, who lost his own language abroad, and brought home no other instead of it.

*Denham.*

If young African for fame

His wasted country freed from Punick rage,  
The deed becomes unpraised, the man at least,  
And loses, though but verbal, his reward. *Milton.*

Sometimes he will seem to be charmed with words of holy scripture, and to fly from the letter and dead verbalty, who must only start at the life and animated materials thereof.

*Browne's Vulgar Errors.*

Being at first out of the way to science, in the progress of their inquiries they must lose themselves, and the truth, in a verbal labyrinth.

*Glanville.*

'Tis almost impossible to translate verbally, and well, at the same time.

*Dryden.*

The manner of our denying the deity of Christ, here prohibited, was by words and oral expressions verbally to deny it.

South's Sermons.

Neglect the rules each verbal critick lays,  
For not to know some trifles is a praise. Pope.

**VERBASCUM**, in botany, mullein or cow's lungwort, a genus of plants of the class of pentandria and order of monogynia, and in the natural system arranged under the twenty-eighth order, luriæ. The corolla is rotated and rather unequal; the capsule is monolocular and bivalved. There are twelve species, six of which are natives of Britain. 1. *V. nigrum*, or black mullein, having a stem beset with hairs beautifully branched; the blossoms yellow with purple tips. The flowers are grateful to bees. Swine eat it; sheep are not fond of it, but cows, horses, and goats, refuse it. The other British species are the *lychnitis*, *nigrum*, *blattasi*, and *virgatum*. 2. *V. thapsus*, or great mullein, having a single stem, simple and erect, covered with leaves, about six feet high. Leaves large, broad, white, woolly on both sides, sessile, decurrent. Flowers terminal, in a long spike, sessile, yellow. Catarrhal coughs and diarrhœas are the complaints for which it has been internally prescribed. Dr. Home tried it in both, but it was only in the latter disease that this plant succeeded.

**VERBATIM**, *adv.* Lat. *verbatim*. Word for word.

Think not, although in writing I preferred  
The manner of thy vile outrageous crimes,  
That therefore I have forged, or am not able  
*Verbatim* to rehearse the method of my pen.

Shakespeare.

See the transcripts of both charters *verbatim* in Mat. Paris.

Hale.

**VERBENA**, in botany, vervain, a genus of the class of diandria and order of monogynia, and in the natural system arranged under the fortieth order, personatæ. There are seventeen species, only one of which is a native of Britain, viz. *V. officinalis*, or common vervain, which grows on the road sides near towns and villages. The leaves have many jagged clefts; the blossoms are pale blue. It manifests a slight degree of astringency, and was formerly much in vogue as a deobstruent, but is now disregarded. Mr. Millar says that it is never found above a quarter of a mile from a house; whence the common people in England call it *Simpler's Joy*, because wherever it is found it is a certain sign of a house being near. Sheep eat it; cows, horses, and goats, refuse it.

**VERBERATION**, *n. s.* Fr. *verberation*. Blows; beating.

Riding or walking against great winds is a great exercise, the effects of which are redness and inflammation; all the effects of a soft press or *verberation*.

Arbutnot.

**VERBESINA**, in botany, naked-headed hemp agrimony, a genus of plants of the class of syngenesia and order of polygamia superflua, and in the natural method ranking under the forty-ninth order, compositæ.

**VERBOSE**, *adj.* } Lat. *verbosus*. Exuberant.  
**VERBOSITY**, *n. s.* } Want in words; prolix; tedious by multiplicity of words: the noun substantive corresponding.

He draweth out the thread of his *verbosity*  
Finer than the staple of his argument. Shakespeare.

They ought to be brief, and not too *verbose* in their way of speaking; and to propound the matter of their argument in a mild and gentle manner.

Ayliffe's Parergon.

Let envy,  
Ill-judging and *verbose*, from Lethe's lake  
Draw tuns unmeasurable. Prior.

Homer is guilty of *verbosity*, and of a tedious prolix manner of speaking: he is the greatest talker of all antiquity. Browne.

**VER'DANT**, *adj.* Fr. *verdoiant*; Lat. *viridans*. Green.

Each odorous bushy shrub  
Fenced up the verdant wall. Milton.

**VERDE**, CAPE, a cape of Africa, stretching out into the Atlantic, and forming the most westerly point of that continent: the soil here is arid, upon a bottom of hard sand, whence, however, spring a considerable number of those immense trees called Baobabs, which give to the peninsula a verdant appearance, whence its name is derived. On the northern coast are two mountains of sand, which rise to the height of about 600 feet, with summits in the form of domes: these form a useful guide to mariners.

**VERDE**, ISLANDS OF CAPE, a groupe situated in the Atlantic, about eighty miles west of the above cape. It consists of ten islands, of which the largest are St. Jago, St. Antonio, and St. Nicholas; the small Mayo, Bonavista, Sal, St. Vincent, St. Lucia, Brava, and Fogo. The large islands rise in the interior into very lofty mountains, from which they derive a copious supply of water. Fogo also, as its name expresses, is composed of a very formidable volcano. The rest of the smaller islands, though rocky, are destitute of very considerable elevations, and are thus at once deprived of good water, and rendered highly unproductive. Even the most fertile districts of this little archipelago cannot rival the rich soil of Madeira and the Canaries. The only product for which its arid and stony soil is well adapted is that of cotton, which, being manufactured by the natives into a species of coarse cloth, not only supplies the inhabitants with dress, but is exported in considerable quantity to Africa. A peculiarly excellent breed of mules and asses is also found here, and the best parts of the islands are fruitful in Indian corn. Poultry also thrive, and turtle are caught plentifully on the shores. But the most valuable product of the islands is sea salt, for the formation of which Mayo is peculiarly well adapted. On the western side is a great saline, or pond separated from the sea by a sand-bank, with an opening which admits the water at spring tides. The water, introduced by one tide, is congealed and formed into salt before the influx of another: it is then collected in heaps, and kept ready for exportation. The dry season, from November till May, is the period suited for this operation. The Americans lade here many cargoes of salt; and a good deal is also sent to the opposite coast of Africa. The Cape de Verde Islands ever since their discovery have been subject to Portugal; but have never proved of any great value. The original settlers went out in consi-



derable numbers; but they suffered severely from drought and bad seasons, and many of them returned to Portugal. At present, the Portuguese inhabitants are few, and very poor; and the negro and mulatto natives have become in a great measure independent. A governor-general, however, resides on the island of St. Jago, at Porto Praya, to which he has removed from Ribeira Grande, his former residence.

**VERDICT**, *n. s.* Lat. *verum dictum*. The determination of a jury declared to the judge; declaration; decision.

Before the jury go together, 'tis all to nothing what the verdict shall be. *Spenser.*

Deceived greatly they are, who think that all they whose names are cited amongst the favourers of this cause are on any such verdict agreed. *Hooker.*

They have a longing desire to overcome, and to have the verdict pass for them, be it right or wrong. *Kettlevell.*

These were enormities condemned by the most natural verdict of common humanity; and so very gross and foul that no man could pretend ignorance avoided. *South.*

A very likely matter, indeed, that the emperor should ask the Arians whether they would be tried by the verdict of those who had before condemned the Arians by name. *Waterland.*

**VERDIGRISE**, *n. s.* Fr. *vert de gris*, the hoary green.—Peacham. The rust of brass, which in time, being consumed and eaten with tallow, turneth into green.

Brass turned into green is called *verdigrise*. *Bacon.*

**VERDIGRISE**, or the acetite of copper, is much used by painters as a green color. It is chiefly manufactured at Montpellier, the vines of Languedoc being very convenient for this purpose. See **CHEMISTRY**. A solution or erosion of copper, and consequently of verdegrise, may be prepared by employing vinegar instead of wine. But it would not have the unctuousity of ordinary verdegrise, which quality is necessary in painting. Good verdigrise must be prepared by means of a vinous acid, or solvent half acid and half spirituous. Accordingly the success of the operation depends chiefly on the degree of fermentation to which the wine employed has been carried; for this fermentation must not have been so far advanced that no sensibly vinous or spirituous parts remained in the liquor. Verdegrise is employed externally for deterring foul ulcers, and as an escharotic. It is rarely or never given internally.

**VERDITER**, *n. s.* Fr. *verd de terre*. Chalk made green.

*Verditure*, ground with a weak gum arabic water, is the faintest and palest green. *Peacham.*

**VERDITER**, or **VERDATER**, is a preparation of copper sometimes used by the painters, &c., for a blue, but more usually mixed with a yellow for a green color. See **CHEMISTRY** and **COLOR-MAKING**.

Dr. Merret says that verditer is prepared in the following manner:—A quantity of whiting is put into a tub, and upon this the solution of the copper is poured. The mixture is to be stirred every day for some hours together, till the liquor loses its color. The liquor is then to be poured off, and more solution of copper is to be

added. This is to be repeated till the whiting has acquired the proper color. Then it is to be spread on large pieces of chalk, and dried in the sun. It appears from M. Pelletier's analysis that 100 grains of the very best verditer contain of carbonic acid 30, of water 3½, of pure lime 7, of oxygen 9½, and of pure copper 50. The author remarks that the verditers of inferior quality contain more chalk and less copper.

**VERDUN**, a town in the north-east of France, department of the Meuse, and traversed by that river. The population somewhat exceeds 9000; and the town is divided into three parts, the Upper, Lower, and New town. The first forms the larger portion, and stands on an eminence sloping towards the Meuse. The whole is strongly fortified, and has a citadel situated on an eminence, bathed by the river. Verdun is the see of a bishop, and stands thirty-five miles west of Metz, and fifty-five north-west of Nancy.

**VERDURE**, *n. s.* } Fr. *verdure*. Green;

**VERDUBIOUS**, *adj.* } green color; hence grass; pasturage: the adjective means covered or decked with green.

Its verdure clad

Her universal face with pleasant green. *Milton.*

Higher than their tops

The verdurous wall of paradise up-sprung:

Which to our general sire gave prospect large. *Id.*

Let twisted olive bind those laurels fast,

Whose verdure must for ever last. *Prior.*

**VERE** (sir Francis), an English general, was the second son of Geoffrey de Vere, a branch of the ancient family of that name, earls of Oxford, born in 1554. About the age of thirty-one he embarked with the troops sent by queen Elizabeth, under the earl of Leicester, to assist the states of Holland; in which service his courage became immediately conspicuous; but his gallant behaviour in the defence of Bergen-op-Zoom in 1588, when besieged by the prince of Parma, established his reputation. After the siege was raised he was knighted by lord Willoughby, who had succeeded Leicester. He continued in the service of the states till 1595; in 1593 he was elected member of parliament for Leominster. The famous expedition against Cadiz being resolved upon, sir Francis was called home, and appointed to a principal command under the earl of Essex. The success is well known. In 1597 he was in Holland at the battle of Turnhout, of which he has given a particular description in his Commentaries. In the same year he embarked with the earl of Essex in the expedition to the Azores; and, at his return, was appointed governor of the Briel in Holland, with the command of the English troops in the service of the states. In 1600 he was one of the three generals at the battle of Nieuport, and the victory was universally ascribed to his conduct and resolution. But the last and most glorious achievement of his life was his gallant defence of Ostend, with about 1600 men, against an army of 12,600, from July, 1601, until March, 1602, when he resigned the government and returned to Holland. He died in 1608 in the fifty-fourth year of his age. His Commentaries were printed at Cambridge, 1657, folio.

**VERE** (sir Horace), brother of the above, was

born in 1565. He was created a peer by the title of lord Vere.

VEREMUND, a native of Spain, who was archdeacon of St. Andrew's in Scotland in the middle of the eleventh century. He wrote a history of Scotland from its origin to the year 1060, and dedicated it to king Malcolm III.

VERGE, *n. s.* } Fr. *verge*; Lat. *virga*. A VER'GER. } rod, carried as an emblem of authority; the mace of a dean: verger, he who carries the mace.

I can tip the verger with half a crown, and get into the best seat. Farquhar.

Suppose him now a dean compleat,  
Devoutly loling in his seat;  
The silver verge, with decent pride,  
Stuck underneath his cushion side. Swift.

VERGE, *n. s. & v. n.* Lat. *virgo*. The brink; border; edge; compass: that which compasses; see below for both its legal meanings: to verge is, to tend; bend; press toward, particularly downwards.

Would the inclusive verge  
Of golden metal, that must round my brow,  
Were red-hot steel to sear me to the brain! Shakspeare.

You are old:  
Nature in you stands on the very verge  
Of her confine. Id. King Lear.

Verge is the compass about the king's court, bounding the jurisdiction of the lord steward of the king's household, and of the coroner of the king's house, and which seems to have been twelve miles round. Verge hath also another signification, and is used for a stick, or rod, whereby one is admitted tenant, and, holding it in his hand, sweareth fealty to the lord of the manor; who, for that reason, is called tenant by the verge. Cowell.

Serve they as a flowery verge to bind  
The fluid skirts of that same watery cloud,  
Lest it again dissolve, and shower the earth. Milton.

They serve indifferently for vowels in respect of the aperture, and for consonants in respect of the pene-appulse; and so much the more verging either way, according to the respective occasions. Holder.

Let Fortune empty her whole quiver on me,  
I have a soul, that, like an ample shield,  
Can take in all, and verge enough for more. Dryden.

Every thing great, within the verge of nature, or out of it, has a proper part assigned it in this poem. Addison.

Such are indicated, when the juices of a human body verge to putrefaction. Arbuthnot.

Then let him chuse a damsel young and fair,  
To bless his age, and bring a worthy heir  
To sooth his care, and, free from noise and strife,  
Conduct him gently to the verge of life. Pope.

The nearer I find myself verging to that period of life, which is to be labour and sorrow, the more I prop myself upon those few supports that are left. Swift.

VERIFY, *v. a.* } Fr. *verifier*. To jus-  
VERIFICATION, *n. s.* } tify against charge of falsehood; confirm; prove true: the noun substantive corresponding.

What seemeth to have been uttered concerning sermons, and their efficacy or necessity, in regard of divine matter, must consequently be verified in sundry other kinds of teaching, if the matter be the same in all. Hooker.

This is verified by a number of examples, that whatsoever is gained by an abusive treaty ought to be restored. Bacon.

So shalt thou best fulfil, best verify  
The prophets old, who sung thy endless reign. Milton.

In verification of this we will mention a phenomenon of our engine. Boyle.

Though you may mistake a year;  
Though your prognosticks run too fast,  
They must be verified at last. Swift.

VERTILY, *adv.* From very. In truth; certainly.

Verily 'tis better to be lowly born  
Than to be perked up in a glistering grief. Shakspeare.

It was verily thought that, had it not been for four great disfavours of that voyage, the enterprize had succeeded. Bacon.

By repealing the sacramental test, we are verily persuaded the consequence will be an entire alteration of religion among us. Swift on the Sacramental Test.

VERISIMILITUDE, *n. s.* } Lat. *verisimili-*  
VERISIMIL'ITY. } tudo. Proba-  
VERISIM'ILAR, *adj.* } bility; likelihood;  
VERISIM'ILOUS. } resemblance of  
truth: the adjectives correspond.

Many erroneous doctrines of pontificians are, in our days, wholly supported by versimilous and probable reasons. White.

A noble nation, upon whom, if not such verities, at least such versimilities of fortitude were placed. Browne.

Versimilitude and opinion are an easy purchase; but true knowledge is dear and difficult. Like a point, it requires an acuteness to its discovery: while versimilitude, like the expanded superficies, is obvious, sensible, and affords a large and easy field for loose enquiry. Glanville.

The plot, the wit, the characters, the passions, are exalted as high as the imagination of the poet can carry them, with proportion to versimility.

Dryden on Dramatick Poetry.

VERITY, *n. s.* } Fr. *verité*; Lat. *veritas*.  
VER'ITABLE, *adj.* } Truth; consonance to the  
VER'ITABLY, *adv.* } reality of things: veritable is true; agreeable to fact: the adverb corresponding.

Wherefore should any man think, but that reading itself is one of the ordinary means whereby it pleaseth God, of his gracious goodness, to instil that celestial verity, which, being but so received, is nevertheless effectual to save souls? Hooker.

I saw their weapons drawn; there was a noise;  
That's verity. Shakspeare.

Indeed! is 't true?  
—Most veritable; therefore look to 't well. Id.  
Must virtue be preserved by a lie?  
Virtue and truth do ever best agree;  
By this it seems to be a verity,

Since the effects so good and virtuous be. Davies.  
The presage of the year succeeding, made from insects in oak apples, is I doubt too indistinct, nor veritable from event. Browne's Vulgar Errors.

The precipitancy of disputation, and the stir and noise of passions that usually attend it, must needs be prejudicial to verity; its calm insinuations can no more be heard in such a bustle than a whistle among a crowd of sailors in a storm. Glanville.

It is a proposition of eternal verity, that none can govern while he is despised. We may as well imagine that there may be a king without majesty, a supreme without sovereignty. South.



**VERJUICE**, *n. s.* Fr. *verjus*; Lat. *veris jus*. Acid liquor expressed from crab-apples.

The barley-pudding comes in place :  
Then bids fall on ; himself, for saving charges,  
A peeled sliced onion eats, and tipples *verjuice*.

*Dryden.*

Hang a dog upon a crab-tree, and he'll never love *verjuice*.

*L'Estrange.*

The native *verjuice* of the crab, derived  
Through the' infixed graff, a grateful mixture forms  
Of tart and sweet.

*Philips.*

**VERJUICE** is obtained from grapes or apples when unfit for wine or cider, or from sweet ones while yet acid and unripe. Its chief use is in sauces, ragouts, &c.; it is also an ingredient in some medicinal compositions, and is used by the wax-chandlers to purify their wax.

**VERMES**, worms, in zoology, the sixth class of the Linnean system, thus classically characterised :—Of slow motion, soft substance, able to increase their bulk, and restore parts which have been destroyed, extremely tenacious of life, and the inhabitants of moist places. Many of them are without distinct head, and most of them without feet; they are principally distinguished by their tentacles or feelers. They are divided into the five orders of intestina, mollusca, testacea, zoophyta, and infusoria; for which see **ZOOLOGY**.

**VERMICELLI**, *n. s.* Ital. *vermicelli*. A paste rolled and broken in the form of worms.

With oysters, eggs, and *vermicelli*,

She let him almost burst his belly.

*Prior.*

**VERMICELLI**, or **VERMICHELLY**, a composition of flour, cheese, yolks of eggs, sugar, and saffron, reduced to a paste and formed into long slender pieces like worms, by forcing it with a piston through a number of little holes. It was first brought from Italy where it is in great vogue; it is chiefly used in soups and pottages.

**VERMICULAR**, *adj.* Lat. *vermiculus*.

**VERMICULATION**, *n. s.* } Acting like a worm;

**VERMICULE**. } continued from one

part to another of the same body: the noun substantive corresponds: a vermicule is a little worm or grub.

My heart moves naturally by the motion of palpitation; my guts by the motion of *vermiculation*.

*Hooker.*

By the *vermicular* motion of the intestines, the grosser parts are derived downwards, while the finer are squeezed into the narrow orifices of the lacteal vessels.

*Cheyne.*

I saw the shining oak-ball ichneumon strike its terebra into an oak-apple, to lay its eggs therein: and hence are many *vermicules* seen towards the outside of these apples.

*Derham.*

**VERMIFUGE** is a medicine which expels worms from the intestines. Dr. Hammerlin of Ulm has lately recommended as a very powerful and safe vermifuge the coralline of Corsica, and says that it has been so used in that island with complete success from time immemorial. It is a fucus adhering to the rocks washed by the sea, and sometimes to the stones and shells thrown upon the shore. In the system of plants of Linnæus it belongs to the class cryptogamia. Its most common names are sea rock moss, the Grecian herb, lemithochorton, and the coralline of Corsica.

**VERMIL**, *n. s.*

**VERMILION**, *n. s.* & *v. a.* } Fr. *vermeil*; *vermil-*  
lon. The cochineal; a grub of a particular plant; factitious or native cinnabar; sulphur mixed with mercury; any fine red color: to vermilion is to dye red.

How the red roses flush up in her cheeks,  
And the pure snow with goodly *vermil* stain,  
Like crimson dyed in grain!

*Spenser.*

There grew a goodly tree him fair beside,  
Loaden with fruit and apples rosie red,

As they in pure *vermilion* had been dyed,

Whereof great virtues over all were read.

*Id.*

The imperfect metals are subject to rust, except mercury, which is made into *vermilion* by solution or calcination.

*Bacon.*

Simple colours are strong and sensible, though they are clear as *vermilion*.

*Dryden's Dufresnoy.*

A sprightly red *vermillions* all her face,  
And her eyes languish with unusual grace.

*Granville.*

**VERMILION** is a very bright and beautiful red color, composed of quicksilver and sulphur, in great esteem among the ancients under the name of minium; but what goes by the name of minium amongst us is a preparation of lead, known also by the name of red-lead. See **CHEMISTRY**.

**VERMIN**, *n. s.*

**VERMINATION**, } Fr. *vermin*; Lat. *ver-*  
**VERMINOUS**, *adj.* } *mis.* Any noxious ani-  
mal. Used commonly

for small creatures; and, in contempt, of human beings: vermination is the generation of vermin: verminous, abounding in vermin.

What is your study?

—How to prevent the fiend, and to kill *vermin*.

*Shakespeare.*

The head of a wolf, dried and hanged up in a dove-house, will scare away *vermin*, such as weazels and polecats.

*Bacon.*

A wasting of children's flesh depends upon some obstruction of the entrails, or *verminous* disposition of the body.

*Harvey.*

The stars determine

You are my prisoners, base *vermin*.

*Hudibras.*

Redi discarding anomalous generation, tried experiments relating to the *cermination* of serpents and flesh.

*Derham.*

He that has so little wit

To nourish *vermin*, may be bit.

*Swift.*

Great injuries these *vermin*, mice, and rats, do in the field.

*Mortimer's Husbandry.*

**VERMIN** is a collective name, including all kinds of little animals and insects which are hurtful or troublesome to mankind, beasts, or fruits, &c., as worms, lice, fleas, caterpillars, ants, flies, &c.

**VERMIPAROUS**, *adj.* Lat. *vermis* and *pario*. Producing worms.

Hereby they confound the generation of *vermiparous* animals with oviparous.

*Browne's Vulgar Errors.*

**VERMONT**, one of the United States of South America, bounded north by Lower Canada, east by the Connecticut, which separates it from New Hampshire, south by Massachusetts, and west by New York. Long. 71° 33' to 73° 26' W., lat. 42° 44' to 45° N.; 157 miles long, and ninety broad on the north line, and forty on the south; containing 10,212 square miles. Population, in 1780, 85,589; in 1800, 154,465; and

in 1810, 217,895. The number of militia in 1817 amounted to 20,903.

The counties, number of towns, population, and chief towns are exhibited in the following table:—

| Counties.  | Towns. | Pop.   | Chief Towns.                              |
|------------|--------|--------|---|
| Addison    | 23     | 19,993 | { Middlebury<br>Vergennes                 |
| Bennington | 18     | 15,893 | { Bennington<br>Manchester                |
| Caledonia  | 18     | 14,966 | { Danville<br>Peacham                     |
| Chittenden | 16     | 14,684 | { Burlington                              |
| Essex      | 19     | 3,087  | { Guildhall                               |
| Franklin   | 19     | 16,427 | { St. Albans                              |
| Grand Isle | 5      | 3,445  | { North Hero                              |
| Orange     | 18     | 22,085 | { Chelsea<br>Newbury<br>Randolph          |
| Orleans    | 23     | 5,838  | { Irasburg                                |
| Rutland    | 27     | 29,487 | { Rutland                                 |
| Washington | 15     | 10,372 | { Montpelier                              |
| Windham    | 23     | 26,760 | { Newfane<br>Brattleborough<br>Manchester |
| Windsor    | 23     | 34,877 | { Woodstock<br>Windsor<br>Royalton.       |

Montpelier is the seat of government. The other most considerable towns are Burlington, Middlebury, Windsor, Brattleborough, and Bennington. There is no bank at present in this state.

There are two colleges in Vermont, one at Burlington and the other at Middlebury; and academies have been established at Addison, Arlington, Bennington, Brandon, Burlington, Castleton, Cavendish, Chester, Fairfield, Middlebury, Montpelier, Norwich, Peacham, Randolph, Royalton, Shaftsbury, Shoreham, St. Albans, and Windsor. Common schools are supported throughout the state. The principal denominations of Christians in Vermont are Congregationalists, who had, in 1818, seventy-five ministers and a much larger number of congregations; Baptists, who had, in 1817, 112 congregations. There are also some Methodists, Episcopalians, Friends, Universalists, &c.

The legislative power is vested in a house of representatives. Every town has the right to send one representative. The executive power is vested in a governor, lieutenant-governor, and twelve counsellors. All these officers, together with the representatives, are chosen annually on the first Tuesday in September. The legislature meets on the second Thursday in October. Judges and other officers are appointed for one year.

The west bank of Connecticut River forms the eastern boundary of Vermont. The most considerable rivers within the state are Lamoile, Onion, Otter Creek, Misisque, Deerfield, White, Black, and Pasumic.

The face of the country is generally uneven, and a great part of it is mountainous. The Green Mountains (in Latin *Ver Mons*), from which the state takes its name, extend through the whole length of the state nearly north and south, and

are from ten to fifteen miles wide, intersected by valleys. They lie principally on the east side of Bennington, Rutland, and Addison counties. In Chittenden county they appear to divide, the highest chain continuing a northern course through Chittenden county, while the Height of Land, so called from its not being broken through by any river, owing to its uniform elevation, strikes off to the north-east as far as Cabot. The western range presents much the loftiest summits, but has inequalities which afford a passage for Onion and Lamoile rivers. The highest summits of the Green Mountains in Vermont are Killington Peak, Camel's Rump, and Mansfield Mountains. Ascutney is a noted mountain on the east side of the state, south of Windsor.

A large proportion of the soil in this state is fertile, and fitted to the various purposes of agriculture. It is generally deep, of a dark color, rich, moist, warm, loamy, and seldom parched with drought. The low lands on the interval are thought the best: bordering on these is usually a strip one or two miles wide, comparatively poor; beyond which, the land recovers a fertility nearly equal to that on the rivers. Much of the land among the Green Mountains is excellent for grazing, and here are found many fine farms.

Wheat is extensively cultivated, particularly on the west side of the mountains. Barley, rye, oats, peas, and flax, flourish in all parts of the state. Corn thrives best on the intervals, but is also raised in abundance on the uplands. The exports of Vermont consist of pot and pearl ashes, beef, pork, butter, cheese, flax, live cattle, &c. The trade is chiefly with Boston, Hartford, New York, and Montreal.

Iron ore of good quality is found in several places. There are quarries of marble at Middlebury, Bennington, Arlington, Shaftsbury, Pittsford, and Swanton. Porcelain earth is found at Monkton. There are also some lead and copper mines. There are twelve paper mills in the state. Among the most considerable manufacturing towns are Middlebury, Bennington, Brattleborough, Burlington, and Montpelier. Large quantities of maple sugar are made in this state for home consumption, and some for exportation.

The climate is healthy, but subject to great extremes of heat and cold. Winter in its severity commences about the 1st of December, and continues to about the middle of March. During this season the weather is generally fair, and the cold more uniform and steady than in the other New England states. An extraordinary cave was discovered in the town of Plymouth in this state in 1818.

**VERNACULAR**, *adj.* Lat. *vernaculus*. Native; of one's own country.

Which instances do evidently bring a consumption under the notion of a *vernacular* disease to England. *Harvey.*

The histories of all our former wars are transmitted to us in our *vernacular* idiom. *Addison.*

**VERNAL**, *adj.* } Lat. *vernus*. Belonging  
**VER'NANT**. } to the spring.

With the year  
Seasons return; but not to me returns,  
Or sight of vernal bloom, or summer's rose. *Milton.*



Else had the spring  
Perpetual smiled on earth with *vernant* flowers. *Id.*

**VERNIER SCALE**, a scale excellently adapted for the graduation of mathematical instruments, thus called from its inventor Peter Vernier, a person of distinction in the Franche Comté. Vernier's method is derived from the following principle:—If two equal right lines, or circular arcs, A, B, are so divided that the number of equal divisions in B is one less than the number of equal divisions of A, then will the excess of one division of B above one division of A be compounded of the ratios of one of A to A, and one of B to B.

For let A contain 11 parts, then one of A to A is as 1 to 11, or  $\frac{1}{11}$ . Let B contain 10 parts,

then one of B to B is as 1 to 10, or  $\frac{1}{10}$ . Now  $\frac{1}{10}$

$$-\frac{1}{11} = \frac{11-10}{10 \times 11} = \frac{1}{10 \times 11} = \frac{1}{10} \times \frac{1}{11}$$

Or if B contains  $n$  parts, and A contains  $n+1$  parts; then  $\frac{1}{n}$  is one part of B, and  $\frac{1}{n+1}$

is one part of A. And  $\frac{1}{n} - \frac{1}{n+1} = \frac{n+1-n}{n \times n+1} = \frac{1}{n \times n+1}$ .

The most commodious divisions, and their aliquot parts, into which the degrees on the circular limb of an instrument may be supposed to be divided on the radius of that instrument.

Let R be the radius of a circle in inches, and a degree to be divided into  $n$  parts, each being  $\frac{1}{n}$ th part of an inch.

Now the circumference of a circle, in parts of its diameter  $2R$  inches is  $3,1415926 \times 2R$  inches.

Then  $360^\circ : 3,1415926 \times 2R :: 1^\circ : \frac{3 \cdot 1415926}{360} \times 2R$  inches.

Or:  $0.01745329 \times R$  is the length of  $1^\circ$  in inches.

Or,  $0.01745329 \times R \times p$  is the length of  $1^\circ$  in  $p$ th parts of an inch.

But, as every degree contains  $n$  times such parts, therefore  $n = 0.01745329 \times R \times p$ .

The most commodious perceptible division is  $\frac{1}{8}$ th or  $\frac{1}{10}$ th of an inch.

**Example.**—Suppose an instrument of thirty inches radius, into how many convenient parts may each degree be divided? how many of these parts are to go to the breadth of the vernier? and to what parts of a degree may an observation be made by that instrument? Now  $0.01745 \times R = 0.5236$  inches, the length of each degree; and, if  $p$  be supposed about one-eighth of an inch for one division, then  $0.5236 \times p = 4.188$  shows the number of such parts in a degree. But, as this number must be an integer, let it be 4, each being  $15'$ ; and let the breadth of the vernier contain 31 of those parts, or  $74^\circ$ , and be divided into 30 parts.

Here  $n = \frac{1}{4}$ ;  $m = \frac{1}{30}$ ; then  $\frac{1}{4} \times \frac{1}{30} = \frac{1}{120}$  of

a degree, or  $30'$ , which is the least part of a degree that instrument can show.

If  $n = \frac{1}{5}$ , and  $m = \frac{1}{36}$ ; then  $\frac{1}{5} \times \frac{1}{36} = \frac{60}{5 \times 36}$  of a minute, or  $20'$ .

The following table, taken as examples in the instruments commonly made from three inches to eight feet radius, shows the divisions of the limb to nearest tenths of inches, so as to be an aliquot of  $60'$ 's, and what parts of a degree may be estimated by the vernier, it being divided into such equal parts, and containing such degrees, as their columns show.

| Radical inches. | Parts in a deg. | Parts in vernier. | Breadth of vernier. | Parts observed. |
|-----------------|-----------------|-------------------|---------------------|-----------------|
| 3               | 1               | 15                | $15\frac{1}{4}$     | 4' 0"           |
| 6               | 1               | 20                | $20\frac{1}{4}$     | 3 0             |
| 9               | 2               | 20                | $10\frac{1}{2}$     | 1 30            |
| 12              | 2               | 24                | $12\frac{3}{4}$     | 1 15            |
| 15              | 3               | 20                | $6\frac{3}{4}$      | 1 0             |
| 18              | 3               | 30                | $10\frac{1}{2}$     | 0 40            |
| 21              | 4               | 30                | $7\frac{1}{2}$      | 0 30            |
| 24              | 4               | 36                | $9\frac{1}{2}$      | 0 25            |
| 30              | 5               | 30                | $7\frac{1}{2}$      | 0 20            |
| 36              | 6               | 30                | $5\frac{1}{2}$      | 0 20            |
| 42              | 8               | 30                | $3\frac{3}{4}$      | 0 15            |
| 48              | 9               | 40                | $4\frac{3}{4}$      | 0 10            |
| 60              | 10              | 36                | $3\frac{5}{6}$      | 0 10            |
| 72              | 12              | 30                | $2\frac{1}{2}$      | 0 10            |
| 84              | 15              | 40                | $2\frac{3}{4}$      | 0 6             |
| 96              | 15              | 60                | 4                   | 0 4             |

By altering the number of divisions, either in the degrees or in the vernier, or in both, an angle can be observed to a different degree of accuracy. Thus, to a radius of 30 inches, if a degree be divided into 12 parts, each being  $5'$ , and the breadth of the vernier be 21 such parts,

or  $14^\circ$ , and divided into 20 parts, then  $\frac{1}{12} \times \frac{1}{20} = \frac{1^\circ}{240} = 15''$ : or taking the breadth of the ver-

nier  $27^\circ$ , and divided into 30 parts; then  $\frac{1}{12} \times$

$\frac{1}{30} = \frac{1^\circ}{360}$ , or  $10''$ : Or  $\frac{1}{12} = \frac{1}{50} \times \frac{1^\circ}{600} = 6''$ ; where the breadth of the vernier is  $41^\circ$ .

**VERNON** (Edward), a celebrated English admiral of great bravery, born in Westminster in 1684. He acquired great fame by his exploits in the Spanish West Indies. He bombarded Cartagena and took Porto Bello in 1739. He died in 1757 at an advanced age.

**VERONA**, a province of Austrian Italy, in the government of Venice, with a superficial extent of 1330 square miles, and a population of 285,000. It is watered by the Adige, and, though mountainous, has an agreeable climate and fertile soil. The principal productions are corn, wine, oil, flax, and silk. The mountains contain quarries of beautiful marble.

**VERONA**, a city of Austrian Italy, the capital of the preceding delegation or province, stands in a pleasant and picturesque situation, partly on the border of a large plain. In that direction are the rich tracts extending along the banks of

the Mincio and the Po; to the north the Tyrolean Alps, the first step to the ascent of which may be said to take place in this city.

The form of the city is irregular, the modern buildings extending considerably beyond the old walls. Its circuit is about six miles. It retains its fortification of a moat and earthen mound, and has also two castles on high ground, with a third on the plain; but it is not at present capable of standing a siege. The Adige is crossed by four different bridges which connect the respective divisions of the city. They are all of stone; and one, the bridge of the Castello Vecchio, has an arch somewhat resembling the Rialto of Venice. Verona has five gates, of which one called Porta del Paglio is of elegant architecture.

The streets are mostly narrow and dirty; others, however, are spacious and well paved; in particular that which leads to the Mantua gate, and the Corso, or street where horse-races are held. The houses, though built in general in an antique style, are of good appearance from the quantity of marble employed in their construction. The best buildings are in the principal square. Verona also contains a cathedral and a number of churches, noted for their paintings or architecture. The latter forms the characteristic of the church of St. Zeno, remarkable for its facade, its vast portal, and the rows of columns, each of a single piece of marble, which support its roof. The town-house has on the outside niches containing busts of statues of the distinguished natives of Verona—Pliny the elder, Vitruvius, Catullus, and Cornelius Nepos. The royal palace has never been completed. The Palazzo Bevilacqua, said to be the oldest building in Verona, is a stately edifice going fast to decay. Opposite to it is the Palazzo Cannosia, admired for its front.

Of all the monuments of Verona the most interesting is the Roman amphitheatre in the spacious square called the Piazza del Bra. This is one of the most magnificent remains of Roman architecture that exists. The arena, situated in the centre, and of an oval form, is 220 feet in length, in breadth 130. The seats rise in successive ranges from the arena to a height corresponding to the top of the second row of outward arches. These seats, as well as the different passages, the stair-cases, and galleries of communication, remain entire. The number of ranges of seats is forty-five; that of spectators which might be contained within them about 22,000; the outward circumference of the amphitheatre 1290 feet. The whole consists of vast blocks of marble, and forms a solid mass resting on a double row of vaults, which, in former ages, were appropriated to the custody of the lions, tigers, and other wild beasts. The Academia Philharmonica, founded by the celebrated Maffei, and the Philoli, are both remarkable for a number of ancient monuments, not only in Greek and Latin, but in the Punic and Egyptian languages.

Verona is the seat of one of the five sections of the imperial and royal institute of Austrian Italy. It contains, besides, a lyceum or great school, a gymnasium or classical school, an academy of painting, a public library, and several private collections. The population is about

45,000. Its principal manufacture is that of silk. The lesser manufactures are woollens, leather, gloves, and shoes.

Julius Cæsar established a colony here. On the decline of the empire, Verona experienced the fate of the other towns in the north of Italy. It was taken by Charlemagne in 774; became subsequently a free town; fell, in the course of time, under the sway of leading families; and, in 1405, was united to the territorial possessions of Venice. With these it enjoyed many ages of peace and tranquillity until the year 1796, when Italy was invaded by the French. It was then added to the kingdom of Italy. In 1814 it again fell into the hands of Austria. Twenty miles north-east of Mantua, sixty west of Venice, and ninety east of Milan.

**VERONICA**, in botany, a genus of plants of the class of diandria and order monogynia, arranged in the natural system under the fortieth order, personatæ. There are forty species, fifteen are natives of Britain, only two of which have been applied to any use. 1. *V. beccabunga*, or common brook-lime, the flowers of which are blue, in loose lateral spikes; leaves sessile, oval, opposite, thick, notched. It was formerly considered as of much use externally in wounds and ulcers; but, if it have any peculiar efficacy, it is to be derived from its antiscorbutic virtue. To derive advantage from it the juice ought to be used in large quantities, or the fresh plant eaten as food. 2. *V. officinalis*, common male speed-well, or fluellin, a native of Britain, growing on heaths and barren grounds. The blossoms are blue, the leaves elliptical, serrated, and hairy. The leaves have a small degree of astringency. Cows, sheep, goats, and horses, eat it; swine refuse it.

**VERRHEYEN** (Philip), M.D., an eminent anatomist, born in Holland in 1648. He labored as a farmer till his twenty-second year, when he studied physic at the university of Louvain, where he graduated and became a professor. He died in 1710. He published, 1. *De Corporis Humani Anatomia*, 2 vols. 4to; 2. *De Febribus*, 8vo.

**VERRMEYEN** (John Cornelius), an eminent painter at Haerlem in 1500. He was employed by Charles V. He died at Brussels, in 1559, aged fifty-nine.

**VERRNET**, an eminent French painter, born at Avignon in 1712. He died in 1789.

**VERROCHIO** (Andrew), a painter and statuary, born at Florence in 1432. He discovered the art of taking casts in plaster from the faces of the dead or the living. He executed some fine statues in bronze. He died in 1488.

**VERSAILLES**, a celebrated town of France, twelve miles west by south of Paris, and long the residence of the court. In 1666 it was little more than a village, with a hunting lodge for the royal family, when Louis XIV., desirous of residing out of Paris, began to erect a splendid palace. No expense was spared by him or his successors to render it the most magnificent residence in Europe; and though uninhabited since 1789 it retains almost all its beauty. The situation of the palace is on a rising ground; its front and wings are of polished stone, ornamented with



statues, and a colonnade of the Doric order is in the centre. The great hall is above 220 feet in length, with costly decorations in marble, painting, and gilding. The other apartments are of corresponding size and elegance. This beautiful structure is approached by three great avenues, each lined with a double row of trees, and leading respectively from Paris, St. Cloud, and Sceaux. No city or royal residence can boast a greater display of reservoirs, fountains, and canals. The spacious park and gardens, situated behind the palace, contain parterres, jets d'eau, cascades, and thickets, in pleasant variety; also a magnificent orangery. At some distance, in a retired spot, are the Two Trianons, which may be termed royal residences in miniature; seats to which the king and queen retired when desirous to lay aside their rank and state. The expense thus incurred amounted, from first to last, to many millions sterling; for the attractions of Versailles are principally those of art. The town contains about 30,000 inhabitants. The market-places and squares are larger than is common in France; and the avenues leading to the palace divide the town into two parts, of which the one situated to the left is called the Old, the other the New Town. The latter contains the principal church and the greater proportion of elegant buildings. The removal of the royal residence in 1789 was a great blow to the prosperity of Versailles. A manufacture of fire-arms has been established here. Clocks and watches are also made; and the spinning and weaving of cotton, as well as the bleaching of linen, are carried on on a small scale; and since 1814 the chief benefit to the place has arisen from the visits and residence of English families. Versailles has a cathedral, with eight churches, a high school, several private seminaries of education, a valuable library, a cabinet of natural history, and a botanical garden. It is the chief place of a department (Seine and Oise), and has three annual fairs, viz. in May, August, and October.

VERSCHURING (Henry), a painter born at Gorcum, of which he was chosen magistrate. He was drowned in 1699, aged sixty-eight.

VERSAL, *adj.* A cant word for universal. Total; whole.

Some, for brevity,  
Have cast the *versal* world's nativity. *Hudibras.*

VERSATILE, *adj.* Lat. *versatilis*. 'That may be turned round.

One color to us standing in one place hath a contrary aspect in another; as in those *versatile* representations in the neck of a dove, and folds of scarlet. *Glanville.*

The adventurous pilot in a single year  
Learned his state cock-boat dexterously to steer;  
*Versatile*, and sharp-piercing like a screw,  
Made good the old passage, and still forced a new. *Harte.*

VERSE, *n. s. & v. a.* } French *vers*; Latin  
VERSED, *part. adj.* } *versus*. A line consisting of a certain  
VERSEMAN, *n. s.* } succession of sounds,  
VERSIFICATION, } and syllables; poetry;  
VERSIicator, } metrical language;  
VERsIFIER, } and (Fr. *verset*) a section  
VERsIFY, *v. n. & v. a.* } or paragraph of a book: to verse is to tell in

verse or poetically, (disused): to be versed is to be skilled in; acquainted with: a verseman is a poet; writer of verse: versification, the art or practice of making verses: versify, to make verses, or relate in verse: versifier and versificator corresponding.

You would wonder to hear how soon even children begin to *versify*. *Sidney.*

To follow rather the Goths in rhyming, than the Greeks in true *versifying*, were even to eat acorns with swine, when we may freely eat wheat bread among men. *Ascham.*

Thou hast by moonlight at her window sung,  
With feigning voice, *verses* of feigning love. *Shakspeare.*

In the shape of Corin sate all day,  
Playing on pipes of corn, and *versing* love. *Id.*  
Unintermixed with fictitious fantasies,  
I'll *versify* the truth, not poetize. *Daniel.*

She might be ignorant of their nations, who was not *versed* in their names, as not being present at the general survey of animals, when Adam assigned unto every one a name concordant unto its nature.

*Browne's Vulgar Errors.*  
Some object to his *versification*; which is, in poetry, what colouring is in painting, beautiful ornament. But if the proportions are just, though the colours should happen to be rough, the piece may be of inestimable value. *Glanville.*

This *versed* in death, the infernal knight relates,  
And then for proof fulfilled their common fates.

*Dryden.*  
Statius, the best *versificator* next Virgil, knew not how to design after him. *Id.*

Donne alone had your talent, but was not happy to arrive at your *versification*. *Id.*

Thus far the questions proceed upon the construction of the first earth; in the following *verses* they proceed upon the demolition of that earth.

*Burnet.*  
Whilst she did her various power dispose;  
Virtue was taught in *verse*, and Athens' glory rose. *Prior.*

The god of us *versemen*, you know, child, the snn. *Id.*

In Job and the Psalms we shall find more sublime ideas, more elevated language, than in any of the heathen *versifiers* of Greece or Rome.

*Watts on the Mind.*  
From limbs of this great Hercules are framed  
Whole groupes of pigmies, who are *versemen* named. *Harte.*

VERSIFICATION. If the utility of the whole art of poetry may be reduced, as we think with Temple it may, to 'the hindering some men from becoming very bad poets,' we have the less to regret that our limits impose the necessity of being very brief on this topic in this place. What the hints given in the article QUANTITY will not supply to our readers, as to the classical languages, must be matter of a deeper enquiry than we can here institute: we shall confine ourselves to a few familiar illustrations of the principles of English versification.

All the different feet used in English poetry may be reduced to eight kinds, four of two and four of three syllables; as,

*Dissyllabic feet.*

1. An iambus, - u; as, bêtrây, consîst.
2. A trochee, - u; as, êxtôrt, gûîldeas,
3. A spondee, - -: as, the pâle mûôn.
4. A pyrric, u u; as, ðn thê tall tree.

*Trisyllabic Feet.*

5. An anapaest, *u u -*; as, acquiesce, contravene.  
 6. A dactyl, *- u u*; as, labourer, possible.  
 7. An amphibrac, *u - u*; as, domestic, delightful.  
 8. A tribrach, *u u u*; as, conquerable, numérable.

The trochee, iambus, dactyl, and anapaest, have been called principal feet; as those of which verse may be wholly or chiefly formed. The others are denominated secondary, because their use in English versification is merely to diversify rhythm or to improve the verse.

I. IAMBIC VERSE.—The shortest form of the English iambic consists of an iambus and an additional short syllable. It is only found in stanzas, and has been called the iambic Monometer Catalectic: the following are instances—

Assailing,  
 Availing,  
 Relenting,  
 Repenting.

2. The iambic monometer acatalectic contains an iambic metre, or two iambic feet; as,

With raptur'd ears  
 The monarch hears.

3. The iambic monometer hypercatalectic is the same as the former, with an additional short syllable, as,

Upon a mountain  
 Beside a fountain.

4. The iambic dimeter brachycatalectic consists of three iambic feet; being one foot less than the iambic dimeter; as,

Though in the utmost peak  
 A while we do remain,  
 Amongst the mountains bleak,  
 Exposed to sleet and rain.

5. The iambic dimeter catalectic is one syllable less than the iambic dimeter; as,

Our hearts no longer languish.

6. The iambic dimeter acatalectic contains exactly two iambic metres, or four feet; as,

The spacious firmament on high  
 With all the blue ethereal sky.

7. The iambic trimeter brachycatalectic, or heroic measure, contains one foot (or two syllables) less than the iambic trimeter; as,

Deferr not till to-morrow to be wise;  
 To-morrow's sun to thee may never rise.

In its pure state this verse consists of five iambic feet only. But not only this, but most of the English common measures admit, for the sake of variety, of the occasional introduction of the trochee, dactyl, anapaest, &c.

8. An iambic trimeter acatalectic, or Alexandrine verse, consists of six iambic feet; as,

Especially audience craves, offend'd with thee  
 throng. Drayton.

The Alexandrine verse is only used in modern times (and too often) to diversify the heroic measure; as,

A wounded snake drags his slow length along.

9. The iambic tetrameter brachycatalectic consists of one foot less than four iambic metres, i. e. of seven iambuses; as,

And as the mind of such a man, that hath a  
 long way gone,  
 And either knoweth not his way, or else would  
 let alone. Chapman.

It is usual now to break this verse into a lyric measure, or into two verses, consisting alternately of eight and six syllables; as,

When all thy mercies, O my God,  
 My rising soul surveys,  
 Transported with the view, I'm lost  
 In wonder, joy, and praise.

II. TROCHAIC VERSE.—The shortest trochaic verse in the English language consists of one trochee and a long syllable, and is called the trochaic monometer catalectic; as,

Other joys  
 Are but toys.

2. The trochaic monometer acatalectic consists of one trochaic metre, or two trochaic feet; as,

In the grassy  
 Meadow verdant.

3. The trochaic monometer hypercatalectic contains one syllable more than the exact trochaic monometer; as,

Happ' farming age,  
 Healthy, blithe and sage.

4. A trochaic dimeter brachycatalectic contains two syllables, or one foot less than two trochaic metres; i. e. three trochees; as,

Blow ye summer roses!

5. A trochaic dimeter catalectic consists of one syllable less than two trochaic metres; or of three trochees with an additional long syllable; as,

Fairest piece of well-formed earth.

6. The trochaic dimeter acatalectic contains two trochaic metres, or four trochaic feet; as,

Round us shine the sun-beams brighter.

7. A trochaic dimeter hypercatalectic contains a long syllable more than the last verse; as,

See yon clouds that now disperse and clear.

8. A trochaic trimeter brachycatalectic, seldom employed, contains five trochaic feet, and, of course, one foot less than three trochaic metres; as,

All that walk on foot, or ride in chariots.

9. The trochaic trimeter acatalectic contains six trochees, or three trochaic metres; as,

On a mountain stretched beneath a hoar' willow  
 Lay a shepherd swain, and viewed the rolling  
 billow.

III. ANAPÆSTIC VERSE.—In dactylic and anapæstic measure one foot forms a metre, but in every other case two feet form a metre. 1. The anapæstic monometer acatalectic contains, without redundancy or defect, one anapæstic foot; as,

Now again  
 They remain.

But, by laying the stress of the voice on the first syllable, we reduce the verse into trochaic rhythm; the simplest form of our regular anapæstic verse is the

2. Anapæstic dimeter acatalectic, or verse of two anapæstic feet;



För nõ ärt cöuld ävail.

3. The anapæstic dimeter hypercatalectic contains two anapæstic feet, with an additional short syllable; as,

In the cæve | öf the möin- | tain.

4. The anapæstic trimeter acatalectic three anapæstic feet; as,

Ö yë wöods, sprëd yöur bränchës äpâce ;

To your deepest recesses I fly.

5. The anapæstic tetrameter acatalectic consists of four anapæstic feet; as,

Mäy I gövërn my pässions with äbsölüte swäy ;

And grow wiser and better as life wears away.

6. The anapæstic tetrameter hypercatalectic adds to the end of the last verse a short syllable: as,

Ön the töp | öf thät hill | seë the sün | nöw  
äscënd- | -ing.

OF THE CÆSURA.—In heroic verse the cæsura may take place on the fourth syllable; as,  
Child of the sun", refulgent summer comes.

2. Or on the fifth; as,

He comes attended" by the sultry hours.

3. Or on the sixth; as,

But should he hide his face", th' astonish'd sun.

4. Or, two cæsuras may divide a verse into three portions; as,  
Some love to stray"; there lodg'd", amus'd, and fed.

5. Some lines admirably admit that subdivision of the cæsural pause which may be called a demi cæsura; as,

Warms' in the sun" refreshes' in the breeze,  
Glows' in the stars' and blossoms' in the trees.

VERSION, *n. s.* *Fr.* *version*; *Lat.* *versio*. Change; transformation; change of direction; translation.

Comets are rather gazed upon, than wisely observed in their effects; that is, what kind of comet, for magnitude, colour, *version* of the beams, productive what kind of effects. *Bacon.*

Springs, the antients thought to be made by the *version* of air into water. *Id. Natural History.*

This exact propriety of Virgil I particularly regarded; but must confess that I have not been able to make him appear wholly like himself. For where the original is close, no *version* can reach it in the same compass. *Dryden.*

It will be as easy, nay much easier, to invent some pretence or other against the reading, *version*, or construction. *Waterland.*

VERSTEGAN (Richard), an English antiquary, born in London, of Flemish parents, and educated at Oxford. He went to Antwerp, and wrote on the Antiquities of the Renowned English Nation. London, 1634, 8vo., and 1674. He also wrote, Regal Governments of England, &c. He died in 1625.

VERT, *n. s.* *Fr.* *vert*. Green.

*Vert*, in the laws of the forest, signifies every thing that grows, and bears a green leaf within the forest, that may cover and hide a deer. *Cowell.*

I find no mention in all the records of Ireland of a park or free warren, notwithstanding the great plenty of *vert* and venison. *Sir John Davies.*

VERT, in heraldry, the term for a green color. It is called *vert* in the blazon of the coats of

all under the degree of nobles: but in coats of nobility it is called *emerald*; and in those of kings *venus*. In engraving it is expressed by diagonals, or lines drawn athwart from right to left, from the dexter chief corner to the sinister base.

VERTEBRE, *n. s.* } *Fr.* *vertèbre*; *Latin*  
VERTEBRAL, *adj.* } *vertèbra*. A joint of the back: relating to the spine.

The carotid, *vertebral* and *splenick* arteries, are not only variously contorted, but here and there dilated, to moderate the motion of the blood.

*Ray on the Creation.*

The several *vertebræ* are so elegantly compacted together, that they are as strong as if they were-but one bone. *Ray.*

VERTEX, *n. s.* *Lat.* *vertex*. Zenith; the point over head; hence the top of any thing.

These keep the *vertex*; but betwixt the bear And shining zodiack, where the planets err, A thousand figured constellations roll. *Creech.*

Mountains especially bound with different species of vegetables; every *vertex* or eminence affording new kinds. *Derham.*

VERTICAL, *adj.* } *Fr.* *vertical*, from *Lat.*  
VERTICALLY, *adv.* } *vertèx*. Placed in the  
VERTICALITY, *n. s.* } zenith: the adverb and noun substantive corresponding.

Unto them the sun is vertical twice a-year; making two distinct summers in the different points of the *verticality*. *Broune's Vulgar Errors.*

From these laws, all the rules of bodies ascending or descending in *vertical* lines may be deduced. *Cheyne.*

'Tis raging noon; and *vertical* the sun  
Darts on the head direct his forceful rays.

*Thomson.*

VERTICILLATE, *adj.* *Lat.* *verticillum*. Defined below.

*Verticillate* plants are such as have their flowers intermixt with small leaves growing in a kind of whirls about the joints of a stalk, as pennyroyal, horehound, &c. *Quincy.*

VERTICILLATÆ, a class in Ray's and Boerhaave's Methods, consisting of herbaceous vegetables, having four naked seeds, and the flowers placed in whorls round the stalk. The term is synonymous to the *labiati*, or lip-flowers of Tournefort; and is exemplified in mint, thyme, and savory. *Verticillate* is also the name of the forty-second order in Linnaeus's Fragments of a Natural Method, consisting of plants of the above description.

VERTICILLUS, a mode of flowering, in which the flowers are produced in rings at each joint of the stem, with very short foot-stalks. The term is exemplified in mint, horehound, and the other plants of the natural order of *verticillatæ*.

VERTICITY, *n. s.* *Lat.* *vertèx*. The power of turning; circumvolution; rotation.

Those stars do not peculiarly glance on us, but carry a common regard unto all countries, unto whom their *verticity* is also common.

*Broune's Vulgar Errors.*

We believe the *verticity* of the needle, without a certificate from the days of old. *Glanville.*

Whether they be globules, or whether they have a *verticity* about their own centers, that produce the idea of whiteness in us, the more particles of light

are reflected from a body, the whiter does the body appear. *Locke.*

**VERTICITY** is that property of the loadstone whereby it turns or directs itself to one particular point.

**VERTIGINOUS**, *adj.* *Lat. vertiginosus.* Turning round; rotatory.

This *vertiginous* motion gives day and night successively over the whole earth, and makes it habitable all around. *Bentley.*

These extinguish candles, make the workmen faint and *vertiginous*; and, when very great, suffocate and kill them. *Woodward.*

**VERTIGO**, *n.s.* *Lat. vertigo.* A giddiness; a sense of turning in the head.

*Vertigo* is the appearance of visible objects, that are without motion, as if they turned round, attended with a fear of falling, and a dimness of sight. *Quincy.*

The forerunners of an apoplexy are dulness, *vertigos*, tremblings. *Arbutnot.*

That old *vertigo* in his head

Will never leave him till he's dead. *Swift.*

**VERTOT D'ABOEUF** (Rene Aubert de), a celebrated historian, was born of a noble family in Normandy, in 1655. At sixteen years of age he became Franciscan friar; afterwards he entered into the order of the Præmonstratenses, in which he had several benefices; and at length was a secular ecclesiastic. He became secretary to the duchess of Orleans, member of the Academy of Inscriptions, and historiographer of Malta. He died at Paris in 1735. His principal works are, 1. The History of the Revolution of Sweden. 2. The Revolutions of Portugal. 3. The Revolutions of the Romans. 4. The History of Malta. These works are translated into most of the languages of Europe.

**VERTUE** (George), a celebrated engraver, born in London, in 1684. His engravings are mostly portraits. He wrote a History of Painters, which was published by Horace Walpole, in 3 vols. 4to. He died in 1757.

**VERTUMNUS**, in mythology, a god who presided over gardens and orchards, honored among the Etruscans, from whom the worship of this deity was transmitted to the Romans. Ovid has described the various forms assumed by this deity, in order to obtain the love of Pomona.

**VERVAIN**, *n.s.* } *Fr. verveine*; *Lat. ver-*  
*VERVINE.* } *vena.* A plant.

She night-shade strows to work him ill,  
Therewith the certain, and her dill,  
That hindreth witches of their will. *Drayton.*

Some scattering pot-herbs here and there he found,  
Which, cultivated with his daily care,  
And bruised with certain, were his frugal fare. *Drayden.*

**VERVAIN**, in botany. See **VERBENA**.

**VERULÆ**, a town of Italy, possessed by the Hernici.

**VERUMONTANUM**, in anatomy, a small eminence near the passages where the semen is discharged into the urethra.

**VERUS** (Lucius Ælius Aurelius Cejonius), emperor of Rome, the son of Ælius by Domitia Lucilla, was adopted by Marcus Aurelius as his colleague; and was sent into Syria, out of which he drove the Parthians, for which he had a tri-

umph. See **PARTHIA**. He died in his thirty-ninth year. He was a prince of dissolute manners.

**VERY**, *adj. & adv.* *Fr. veray, or vrai*; *Ital. vera*; *Lat. verus*; whence old English *veray*. It has its degrees *verier* and *veriest*. True; real; complete; more exact: it notes things emphatically or eminently: as an adverb, in a great or high degree.

In *very* deed, as the Lord liveth. 1 Sam. xxv. 34  
That bold challenge was thought *very* strange. *Lesley.*

Why do I pity him,  
That with his *very* heart despiseth me? *Shakspeare.*  
Was not my love

The *verier* wag o' the' two? *Id.*

We can contain ourselves,

Were he the *veriest* antic in the world. *Id.*

Women are as roses, whose fair flower

Being once displayed, doth fall that *very* hour. *Id.*  
Those who had drunk of Circe's cup were turned into *very* beasts. *Davies.*

There, where *very* desolation dwells,  
By grots and caverns shagged with horrid shades,  
She may pass on. *Milton.*

O that in *very* deed we might behold it!

*Dryden and Lee.*  
The cocks beat the partridge, which she laid to heart; but, finding these *very* cocks cutting one another, she comforted herself. *L'Estrange.*

In a seeing age, the *very* knowledge of former times passes but for ignorance in a better dress. *South.*

The Greek orator was *very* famous for this. *Addison.*  
The pictures of our great grandmothers in queen Elizabeth's time are clothed down to the *very* wrists, and up to their very chin. *Id. Guardian.*

**VESICATE**, *v. a.* *Lat. vesica.* To blister.

I saw the cuticular *vesicated*, and shining with a burning heat. *Wiseman.*

I applied some vinegar prepared with litharge, defending the *vesication* with pledgets. *Id. Surgery.*

**VESICATORIUM**, a blister, an application of an acrid nature made to any part of the body, in order to draw a flux of humors to that part, and thus elevate the scarf-skin into a blister.

**VESICLE**, *n.s.* *Lat. vesicula.* A small cuticle filled or inflated.

Nor is the humour contained in smaller veins, but in a *vesicle*, or little bladder.

*Bracæ's Vulgar Errors.*

The lungs are made up of such air pipes and *vesicles*, interwoven with blood-vessels, to purify, ferment, or supply the sanguineous mass with nitro-aerial particles. *Ray.*

A muscle is a bundle of *vesicular* threads, or of solid filaments, involved in one common membrane. *Cheyne.*

**VESPA**, the wasp, a genus of insects belonging to the order of hymenoptera. The mouth consists of two jaws without any proboscis: the superior wings are plaited; the eyes are lunar; and there is a sharp sting in the tail. There are 159 species: three of which are natives of Britain, viz.

1. *V. coarctata*, the small wasp, has black antennæ, yellowish at the base; the head is black with a yellow spot between the antennæ, and another at the base of the upper lip. Each segment of the abdomen is bordered with yellow. It is about half an inch long.



2. *V. crabo*, the hornet, has tawny antennæ; the segments of the abdomen are black on the anterior part, and yellow on the posterior, with two black spots on each. Its length is an inch; it builds in hollow trees. Its cakes or combs are composed of a substance like coarse paper, or rusty parchment. It is very voracious, devouring other insects, and even bees.

3. *V. vulgaris*, the common wasp. The male has seven yellow segments on the abdomen, with a black triangle on each:—The head is yellow, and the antennæ long. The upper lip of the female is yellow, the antennæ short; there are six segments of the abdomen with two lateral black spots on each. M. Reaumur and Dr. Derham agree in distinguishing three sorts; viz. the queens or females, the males, and the common laboring wasps, called mules, or neuters, which, according to Reaumur, are neither males nor females, and consequently barren. The queens, of which there is a great number, are much longer in the body, and larger than any other wasp: they have a large heavy belly, corresponding in size to the prodigious quantity of eggs with which they are charged. The males are less than the queens, but longer and larger than the common wasps, which are the smallest of the species: they have no stings, with which both the queens and common wasps are furnished. There are in one nest 200 or 300 males, and as many females: but their number depends on the size of the nest. See ENTOMOLOGY.

VESPASIAN, the tenth emperor of Rome; remarkable for his clemency and other virtues. See ROME.

VESPASIAN (Titus). See ROME, and TITUS.

VESPER, *n. s.* Lat. *vesper*. The evening star; the evening; an evening prayer.

These signs are black *Vesper's* pageants.

*Shakspeare.*

VESPERTILIO, the bat, a genus of quadrupeds, belonging to the order of primates. All the teeth are erect, pointed, near each other; and the first four are equal. The fore feet have the toes connected by a membrane expanded into a kind of wings by which the creature is enabled to fly. There are twenty-eight species, of which four are natives of Britain. The most remarkable are, 1. *V. murinus*, common bat, has a tail: the lips and nose are simple; and the ears are smaller than the head. It inhabits Europe, and is found in Britain. This animal flies only during the night, living chiefly on moths: when it lights on the ground, it is unable to rise again till it has crawled to some height: it remains torpid during winter, revives in the beginning of the spring, and comes abroad in the dusk of the evening. This species is two inches and a half long, when full grown, and about nine inches in extent; the fur is of a mouse color, tinged with reddish; it generally skims near the ground, with an uneven jerking flight; and often, seeking for gnats and other aquatic insects, flies close by the surface of water. They breed in summer, and are preyed on by owls. Bats are very voracious. They have been subjected to some cruel experiments, by the abbe Spallanzani and M. de Jurine; from which it appears, 1st, That the eyes of the bat

are not indispensably necessary to it for finding its way; 2d, That the organ of hearing appears to supply that of sight in the discovery of bodies, and to furnish these animals with different sensations to direct their flight and enable them to avoid those objects that may present themselves.

2. *V. noctulis*, have the nose slightly bilobed; ears small and rounded; on the chin a minute verruca; hair reddish ash color: length of the rump two inches eight-tenths; tail one inch seven-tenths; extent of wings thirteen inches; inhabits Great Britain and France; flies high. A gentleman informed Mr. Pennant that he saw taken, under the eaves of Queen's College, Cambridge, in one night, 185 of these animals; the second night sixty-three; the third night two; and that each that was measured had fifteen inches extent of wings.

3. *V. spectrum*, or spectre, with a long nose; large teeth; long, broad, and upright ears: at the end of the nose a long conic erect membrane, bending at the end, and flexible; hair on the body cinereous, and pretty long: wings full of ramified fibres; the membrane extends from hind leg to hind leg; no tail; but from the rump extend three tendons, terminating at the edge of the membrane. They inhabit South America; live in the palm trees; grow very fat; called vampyre, by M. de Buffon, who supposes it to be the species that suck human blood.

4. *V. vampyrus*, the vampire, or Ternate bat, with large canine teeth; four cutting teeth above, the same below; sharp black nose; large naked ears; the tongue is pointed, terminated by sharp aculeated papillæ; talons very crooked, strong, and compressed sidewise; no tail; the membrane divided behind quite to the rump; head of a dark ferruginous color; on the neck, shoulder, and under side, of a much lighter and brighter red; on the back the hair shorter, dusky, and smooth; the membranes of the wings dusky. They vary in color; some being entirely of a reddish brown, others dusky. These monsters inhabit Guinea, Madagascar, and all the islands thence to the remotest in the Indian Ocean. They fly in flocks, and perfectly obscure the air with their numbers. They live on fruits; and are so fond of the juice of the palm tree that they will intoxicate themselves with it till they drop. Many are of an enormous size: Beckman measured one whose extent from tip to tip of the wings was five feet four inches; and Dampier another, which extended farther than he could reach with outstretched arms. Their bodies are from the size of a pullet to that of a dove: their cry is dreadful, their smell rank, their bite, resistance, and fierceness great, when taken. The ancients had some knowledge of these animals. Herodotus mentions certain winged wild beasts like bats, that molested the Arabs who collected the cassia, to such a degree that they were obliged to cover their faces, all but their eyes, with skins. It is very probable, as Buffon remarks, it was from such relations that poets formed their fictions of harpies. Linnaeus gives this species the title of vampyre; conjecturing it to be the kind which draws blood from people in their sleep, which however Buf-

for denies; ascribing that faculty only to the spectrum.

**VESSEL**, *n. s. & v. a.* Fr. *vasselle*; Ital. *vacello*; Lat. *vas*. Any thing containing liquids: hence a thing water-tight, as a ship or boat; any thing containing; any capacity: to vessel is to put into a vessel.

For Banquo's issue have I filled my mind;  
Put rancours in the vessel of my peace,  
Only for them.

*Shakspeare. Macbeth.*

The sons and nephews of Noah, who peopled the isles, had vessels to transport themselves.

*Raleigh's Essays.*

Take earth, and vessel it; and in that set the seed.

*Bacon.*

The Phœnicians first invented open vessels, and the Egyptians ships with decks.

*Heylyn.*

The vessel is represented as stranded. The figure before it seems to lift it off the shallows.

*Addison on Medals.*

If the rigid doctrines be found apt to cool all those men's love of God, who have not the confidence to believe themselves of the number of the few chosen vessels, and to beget security and presumption in others who have conquered those difficulties.

*Hammond.*

I have my fill

Of knowledge, what this vessel can contain.

*Milton.*

If you have two vessels to fill, and you empty one to fill the other, there still remains one vessel empty.

*Burnet.*

From storms of rage, and dangerous rocks of pride,

Let thy strong hand this little vessel guide;

It was thy hand that made it: through the tide

Impetuous of this life let thy command

Direct my course and bring me safe to land.

*Prior.*

Another cause of a wasting ulcer in the lungs is the disruption of a vessel, whence the blood issues into the cavities and interstices of the lungs, and thence is expectorated by a cough.

*Blackmore.*

Of these elements are constituted the smallest fibres; of those fibres the vessels; of those vessels the organs of the body.

*Arbuthnot on Aliments.*

Now secure the painted vessel glides;

The sun-beams trembling on the floating tides.

*Pope.*

**VESSEL** is a general name given to the different sorts of ships which are navigated on the ocean, or in canals and rivers. It is, however, more particularly applied to those of the smaller kind, furnished with one or two masts. See SHIP.

**VEST**, *n. s. & v. a.* Lat. *vestis*. An outer garment: to dress; deck; invest; place in possession.

The militia their commissioners positively required to be entirely vested in the parliament.

*Clarendon.*

Over his lucid arms

A military vest of purple flowed.

*Milton's Paradise Lost.*

Just Simeon and prophetic Anna spoke,

Before the altar and the vested priest.

*Milton.*

The verdant fields with those of heaven may vie,

With either vested, and a purple sky.

*Dryden.*

To settle men's consciences, it is necessary that they know the person who by right is vested with power over them.

*Locke.*

Empire and dominion were vested in him, for the good and behoof of others.

*Id.*

When the queen in royal habit's drest,

Old mystick emblems grace the imperial vest.

*Smith.*

Had I been vested with the monarch's power,  
Thou must have sighed, unlucky youth! in vain.

*Prior.*

Light! Nature's resplendent robe;  
Without whose vesting beauty all were wrapt  
In gloom.

*Thomson.*

**VESTA**, in pagan worship, the same with Cybele. See CYBELE, and ORS. Also the goddess of Fire, the daughter of Saturn and Cybele, and the sister of Ceres. She was so much in love with chastity, that on Jupiter's ascending the throne, and offering to grant whatever she asked, she only desired the preservation of her virginity, which she obtained. Vesta was not represented in her temple by any image.

**VESTAL**, *n. s. & adj.* Lat. *vestalis*. A virgin consecrated to Vesta; a pure virgin: pertaining to or denoting a virgin.

Women are not

In their best fortunes strong; but want will perjure  
The ne'er touched vestal.

*Shakspeare.*

Her vestal livery is but sick and green,

And none but fools do wear it.

*Id.*

How happy is the blameless vestal's lot!

The world forgetting, by the world forgot.

*Pope.*

The VESTALS, among the ancient Romans, were priestesses of the goddess Vesta, and had the perpetual fire committed to their charge; they were at first only four in number, but afterwards increased to six; and it does not appear that their number ever exceeded six; among whom was one superior to the rest, and called *vestalis maxima*. The vestals were chosen from six to ten years of age, and obliged to strict continency for thirty years; the first ten of which were employed in learning the ceremonies of religion, the next ten in the performance of them, and the ten last in teaching them to the younger vestals. The habit of the vestals consisted of a head dress, called *infula*, which sat close to the head, and whence hung certain laces called *vitæ*; a kind of surplice made of white linen, and over it a purple mantle with a long train to it.

**VESTALIA**, in Roman antiquity, a festival celebrated in honor of the goddess Vesta, on the fifth of the ides of June; i. e. on the ninth of the month.

**VESTIGE**, *n. s.* Lat. *vestigium*. Footstep; mark left behind in passing.

The truth passes so slightly through men's imaginations, that they must use great subtilty to track its vestiges.

*Harvey.*

**VESTMENT**, *n. s.* Lat. *vestimentum*. Garment; part of dress.

Were it not better that the love which men bear unto God should make the least things, that are employed in his service, amiable, than that their over-scrupulous dislike of so mean a thing as a vestment should from the very service of God withdraw their hearts and affections?

*Hooker.*

The sculptors could not give vestments suitable to the quality of the persons represented.

*Dryden.*

Heaven then would seem thy image and reflect

Those sable vestments and that bright aspect.

*Waller.*

**VESTRY**, *n. s.* Fr. *vestiaire*; Lat. *vestiarium*. A room appendant to the church, in which sacerdotal garments and consecrated things are reposed: parochial assembly commonly convened in the vestry. See next page.



They create new senators, vestry elders, without any commandment of the word. *White.*

The common-council are chosen every year, so many for every parish, by the vestry and common convention of the people of that parish. *Clarendon.*

Bold Amycus from the robbed vestry brings  
The chalices of heaven, and holy things  
Of precious weight. *Dryden.*

Go with me where paltry constables will not sum-  
mon us to vestries. *Blount to Pope.*

VESTRY is also a meeting consisting of the minister, church-wardens, and chief men of most parishes, who make a parish vestry. By custom there are select vestries, being a certain number of persons chosen to have the government of the parish, make rates, and take the accounts of church-wardens, &c.

By stat. 58 Geo. III. c. 69 (amended by stat. 59 Geo. III. c. 85) for the regulation of parish vestries, it is enacted that three days' notice shall be given of the holding of all vestries by publication in the church on a Sunday, and affixing a notice on the church door. That if the rector, vicar, or perpetual curate, is not present at the vestry, a chairman shall be elected by the persons present; that, in cases of equality of votes, the chairman shall have the casting vote, in addition to his vote as a vestryman; that votes shall be proportioned to the amount of the poor's rate upon the parties voting, not exceeding six votes; the parties not having neglected or refused to pay the rates when called on. That the minutes of the proceedings shall be entered in the parish-books, and signed by the chairman, and such vestrymen as choose so to do; and that such books shall be carefully kept, &c. Provision is made for vestries regulated by special acts, &c. By the act 59 Geo. III. persons rated to the poor, though not inhabitants, and the clerks, &c. of corporations, are allowed to attend and vote.

A vestry was called to consider about building a work-house, where it was agreed to, and to borrow money for that purpose: and that whoever should be bound for it, should be indemnified by the parish. This order was confirmed by another, and both signed by the vicar and several of the inhabitants. £300, being the sum agreed upon, was borrowed of A., to whom B. gave bond for it. An order of vestry was made for raising the money; but, upon appeal at the quarter-sessions by some new parishioners, was quashed. B. was sued on the bond, and paid the money, and then brought a bill for relief. And the master of the rolls decreed him his principal, interest, and costs at law, and in chancery; and that the defendants the vicar, churchwardens, and overseers of the poor, call a vestry to make a rate for payment; and, if the inhabitants refuse payment, the plaintiff to be at liberty to apply to the court: And said that he did not see why the court might not as well compel those who are not parties, to pay the rate, as order tenants, though not parties to pay the rates; and, because the defendants had put in a fair answer, their costs were decreed to be raised by the same rate; but said, that if those who had appealed to the quarter-sessions had been before the court, they should have paid all the costs.—2 P. Wms. 332. See 21 Vin. Abr. p. 448.

*Select vestries.*—In large and populous parishes, especially in and about the metropolis, a custom has obtained of yearly choosing a select number of the chief and most respectable parishioners to represent and manage the concerns of the parish for that year; and this has been held to be a good and reasonable custom. It seems also to have been held a good and reasonable custom to choose a certain number of parishioners as a select vestry; and that as often as any of the members die, the rest shall choose one other fit and able parishioner of the same parish to fill up the vacancy of him so deceased; but this can only be supported upon the basis of prescription, and constant immemorial usage.

The custom, however, differing in different parishes as to the election, government, and proceedings of select vestries, it is enacted by the stat. 10 Ann. c. 11, sec. 20, for building fifty new churches in or near London and Westminster, that the commissioners shall appoint a convenient number of sufficient inhabitants to be vestrymen; and from time to time, upon the death, removal, or other voidance of any such vestryman, the rest, or majority of them, may choose another. In several local and personal acts, the legislature has described the persons of whom a select vestry shall respectively consist.

VESTURE, *n. s.* Old Fr. *vesture*; Ital. *vestura*. Garment; robe; dress.

What, weep you when you but behold  
Our Caesar's vesture wounded? *Shakespeare.*

Her breasts half hid, and half were laid to show;  
Her envious vesture greedy sight repelling. *Fairfax.*

Rocks, precipices, and gulfs, appalled with a  
vesture of plants. *Bentley.*

Here ruddy brass, and gold refulgent blazed;  
There polished chests embroidered vestures graced.

*Pope.*

VESUVIAN, in mineralogy, white garnet of Vesuvius. See MINERALOGY.

VESUVIUS, a volcanic mountain in the south of Italy, about eight miles S. S. E. of Naples, celebrated for its eruptions: It rises in a gentle swell from the bay of Naples, to an elevation of nearly 3700 feet. The view from the summit is very beautiful, including Naples, with its bay, its islands, and its promontories, as well as the delightful scenery of the Campagna Felle. To the west the prospect loses itself in the immensity of the sea; to the east it extends far into the interior, and is only bounded by the Appennines. The summit of the mountain is in the form of a cone, and consists of masses of burned earth, ashes, and sand, thrown out in the course of ages by the volcano. It is steep and difficult of ascent from the looseness of the materials. The crater is extensive, nearly a mile and a half in circumference, but has not above 350 feet of depth or descent from the ridge. Its sides or interior surface has been progressively formed of ashes and cinders, intermixed with some rocks and dried lava. The lower part of the crater is a level spot, of nearly three-quarters of a mile in circumference, composed of a sort of crust of brown burned earth, and containing several orifices like funnels, not large, but emitting a thin vapor.

The first of these eruptions recorded in history took place in the year 79: at which time the two

cities of Pompeii and Herculaneum were entirely buried under the stones and ashes thrown out. Incredible mischief was also done to the neighbouring country, and numbers of people lost their lives, among whom was Pliny the elder. It is the opinion of the best judges, however, that this eruption was by no means the first that had ever happened. The very streets of those cities which were at that time overwhelmed are unquestionably paved with lava. Since that time thirty different eruptions have been recorded, some of which have been extremely violent. In 1538 a mountain, three miles in circumference and a quarter of a mile in perpendicular height, was thrown up in the course of one night. In 1766 Sir William Hamilton began to observe the phenomena of this mountain; and since that time the public has been favored with more exact and authentic accounts of the various changes which have taken place in Vesuvius than what were to be had before. The first great eruption taken notice of by this gentleman was that of 1767, which, though very violent, was mild in comparison with that of 1538. From 1767 Vesuvius never ceased for ten years to send forth smoke, nor were there many months in which it did not throw out stones, scoræ, and cinders; which, increasing to a certain degree, were usually followed by lava; so that from the year 1767 to 1779 there were nine eruptions, some of them very considerable. In the month of August that year, however, an eruption took place, which, for its extraordinary and terrible appearance, may be reckoned among the most remarkable of any recorded concerning this or any other volcano. During the whole of July the mountain continued in a state of fermentation. Subterraneous explosions and rumbling noises were heard; quantities of smoke were thrown up with great violence, sometimes with red-hot stones, scoræ, and ashes; and towards the end of the month these symptoms increased to such a degree as to exhibit, in the night, the most beautiful fire-works. On Thursday 5th August the volcano appeared most violently agitated; a white and sulphureous smoke issued continually and impetuously from its crater, one puff seeming to impel another; so that a mass of them was soon accumulated, to appearance, four times the height and size of the volcano itself. These clouds of smoke were exceedingly white, resembling an immense accumulation of bales of the whitest cotton. In the midst of this very white smoke, vast quantities of stones, scoræ, and ashes were thrown up to the height of 2000 feet; and a quantity of liquid lava, seemingly very heavy, was lifted up just high enough to clear the rim of the crater, and take its way down the sides of the mountain. This lava, having run violently for some hours, suddenly ceased, just before it had reached the cultivated parts of the mountain, nearly four miles from the spot whence it issued. The heat all this day was intolerable at the towns of Somma and Ottaviano; and was sensibly felt at Palma and Lauri, which are much farther off. Reddish ashes fell so thick on the two former that the air was darkened so that objects could not be distinguished at the distance of ten feet. Long filaments of a

vitriified matter, like spun glass, were mixed and fell with these ashes; several birds in cages were suffocated, and the leaves of the trees in the neighbourhood of Somma were covered with white and very corrosive salt. About twelve at night on the 7th, the fermentation of the mountain seemed greatly to increase. Our author was watching the motions of the volcano from the mole at Naples, which has a full view of it. Several glorious picturesque effects had been observed from the reflection of the deep red fire within the crater of Vesuvius, and which mounted high amongst those huge clouds on the top of it: when a summer storm, called in that country a *tropea*, came on suddenly, and blended its heavy watery clouds with the sulphureous and mineral ones, which were already like so many other mountains piled up on the top of the volcano. At this moment a fountain of fire was shot up to an incredible height, casting so bright a light that the smallest objects were clearly distinguishable at any place within six miles or more of Vesuvius. The black stormy clouds, passing swiftly over, and at times covering the whole or a part of the bright column of fire, at other times clearing away and giving a full view of it, with the various tints produced by its reverberated light on the white clouds above, in contrast with the pale flashes of forked lightning that attended the *tropea*, forming such a scene as no power of art can express. One of the king's game keepers, who was out in the fields near Ottaviano while this storm was at its height, was surprised to find the drops of rain scald his face and hands: a phenomenon probably occasioned by the clouds having acquired a great degree of heat in passing through the above-mentioned column of fire. On the 8th the mountain was quiet till towards six P. M., when a great smoke began to gather over its crater; and about an hour after a rumbling subterraneous noise was heard in the neighbourhood of the volcano; the usual throws of red-hot stones and scoræ began and increased every instant. The crater, viewed through a telescope, seemed much enlarged by the violence of last night's explosions, and the little mountain on the top was entirely gone. About nine a most violent report was heard at Portici and its neighbourhood, which shook the houses to such a degree as made the inhabitants run out into the streets. Many windows were broken, and walls cracked by the concussion of the air on this occasion, though the noise was but faintly heard at Naples. In an instant a fountain of liquid transparent fire began to rise, and, gradually increasing, arrived at last at the amazing height of 10,000 feet and upwards. Puffs of smoke, as black as can possibly be imagined, succeeded one another hastily, and accompanied the red-hot, transparent, and liquid lava, interrupting its splendid brightness, here and there, by patches of the darkest hue. Within these puffs of smoke, at the very moment of emission, a bright but pale electrical fire was observed playing briskly about in zig-zag lines. The wind was south-west, and, though gentle, was sufficient to carry these puffs of smoke out of the column of fire: and a collection of them by degrees formed a black and extensive curtain behind it; in other



parts of the sky it was perfectly clear, and the stars bright. The fiery fountain, of such immense magnitude, on the dark ground just mentioned, made the finest contrast imaginable; and the blaze of it reflected from the surface of the sea, which was at that time perfectly smooth, added greatly to this sublime view. The lava, mixed with stones and scoræ, having risen to the amazing height already mentioned, was partly directed by the wind towards Ottaiano, and partly falling, still red-hot and liquid, upon the top of Vesuvius, covered its whole cone, part of that of the summit of Somma, and the valley between them. The falling matter, being nearly as inflamed and vivid as that which was continually issuing fresh from the crater, formed with it one complete body of fire, which could not be less than two miles and a half in breadth, and of the extraordinary height above-mentioned, cast a heat to the distance of at least six miles round. The brushwood on the mountain of Somma was soon in a blaze, and the flame of it being of a different color from the deep red of the matter thrown out by the volcano, and from the silvery blue of the electrical fire, still added to the contrast of this most extraordinary scene. The black cloud, increasing greatly, once bent towards Naples, and threatened the city with speedy destruction; for it was charged with electrical fire, which kept constantly darting about in bright zig-zag lines. This fire, however, rarely quitted the cloud, but usually returned to the great column of fire whence it proceeded; though once or twice it was seen to fall on the top of Somma, and set fire to some dry grass and bushes. Fortunately the wind carried back the cloud just as it reached the city, and had begun to occasion great alarm. The column of fire, however, still continued, and diffused such a strong light, that the most minute objects could be discerned at the distance of ten miles or more from the mountain. Mr. Morris informed our author that at Sorrento, which is twelve miles distant from Vesuvius, he read the title page of a book by that volcanic light. All this time the miserable inhabitants of Ottaiano were involved in the utmost distress and danger by the showers of stones which fell upon them, and which, had the eruption continued for a longer time, would most certainly have reduced their town to the same situation with Herculaneum and Pompeii. The mountain of Somma, at the foot of which the town of Ottaiano is situated, hides Vesuvius from the view of its inhabitants; so that, till the eruption became considerable, it was not visible to them. On Sunday night, when the noise increased and the fire began to appear above the mountain of Somma, many of the inhabitants flew to the churches, and others were preparing to quit the town, when a sudden and violent report was heard; soon after which they found themselves involved in a thick cloud of smoke and ashes; a horrid clashing noise was heard in the air, and presently fell a vast shower of stones and large pieces of scoræ, some of which were of the diameter of seven or eight feet, which must have weighed more than 100lbs. before they were broken, as some of the fragments which Sir William Hamilton found in the

streets still weighed upwards of sixty pounds. When these large vitrified masses either struck against one another in the air, or fell on the ground, they broke in many pieces, and covered a large space of ground with vivid sparks of fire, which communicated their heat to every thing that was combustible. These masses were formed of the liquid lava; the exterior parts of which were become black and porous by cooling in their fall through such a vast space; whilst the interior parts, less exposed, retained an extreme heat, and were perfectly red. In an instant the town and country about it were on fire in many parts; for there were several straw huts in the vineyards which had been erected for the watchmen of the grapes, all of which were burnt. A great magazine of wood in the heart of the town was all in a blaze; and had there been much wind the flames must have spread universally, and all the inhabitants would have been burnt in their houses; for it was impossible for them to stir out. Some, who attempted it with pillows, tables, chairs, the tops of wine casks, &c., on their heads, were either knocked down or soon driven back to their close quarters under arches and in the cellars of their houses. Many were wounded, but only two persons died of their wounds. To add to the horror of the scene, incessant volcanic lightning was whisking about the black cloud that surrounded them, and the sulphureous smell and heat would scarcely allow them to draw their breath. In this dreadful situation they remained about twenty-five minutes, when the volcanic storm ceased all at once, and Vesuvius remained sullen and silent. Some time after the eruption had ceased the air continued greatly impregnated with electrical matter. The duke of Cotsosiano told our author that having, about half an hour after the great eruption had ceased, held a Leyden bottle, armed with a pointed wire, out at his window at Naples, it soon became considerably charged. But, whilst the eruption was in force, its appearance was too alarming to allow one to think of such experiments. He was informed also by the prince of Monte Mileto that his son, the duke of Populi, who was at Monte Mileto the 8th of August, had been alarmed by the shower of cinders that fell there; some of which he had sent to Naples weighing two ounces; and that stones of an ounce weight had fallen upon an estate of his ten miles farther off. Monte Mileto is about thirty miles from the volcano. The abbé Cagliani also related that his sister, a nun in the convent of Manfredonia, had written to enquire after him, imagining that Naples must have been destroyed, when they, at so great a distance, had been alarmed by a shower of ashes which fell on the city at 11 P. M. so much as to open all the churches and go to prayers. As the great eruption happened at nine, these ashes must have travelled 100 miles in two hours. Nothing could be more dismal than the appearance of Ottaiano after this eruption. The houses were unroofed, half buried under the black scoræ and ashes; all the windows towards the mountain were broken, and some of the houses themselves burnt; the streets choked up with ashes in some narrow places not less than four feet thick; and a few of the inhabitants who had just returned

were employed in clearing them away, and piling them up in hillocks, to get at their ruined houses. The palace of the prince of Otaiauo is situated on an eminence above the town, and nearer the mountain. The steps leading up to it were deeply covered with volcanic matter; the roof was totally destroyed, and the windows broken; but the house itself, being strongly built, had not suffered much. An incredible number of fragments of lava were thrown out during the eruption, some of which were of immense magnitude. The largest measured by Sir William Hamilton was 108 feet in circumference, and seventeen in height. This was thrown at least a quarter of a mile clear of the mouth of the volcano. Another, sixty-six feet in circumference, and nineteen in height, being nearly of a spherical figure, was thrown out at the same time, and lay near the former. This last had the marks of being rounded, nay almost polished, by continual rolling in torrents or on the sea shore. Our author conjectures that it might be a spherical volcanic salt, such as that of forty-five feet in circumference mentioned by M. de St. Fond in his *Treatise of Extinguished Volcanoes*. A third of sixteen feet in height, and ninety-two in circumference, was thrown much farther, and lay in the valley between Vesuvius and the Hermitage. It appeared also, from the large fragments that surrounded this mass, that it had been much larger while in the air. Vesuvius continued to emit smoke for a considerable time after this great eruption, so that our author was apprehensive that another would soon ensue; but from that time nothing comparable to the above has taken place. From the time of this great eruption to 1786 our author kept an exact diary of the operations of Vesuvius, with drawings, showing, by the quantity of smoke, the degree of fermentation within the volcano. The operations of the subterraneous fire, however, appear to be very capricious and uncertain. One day there will be the appearance of a violent fermentation, and the next every thing will be calmed; but, whenever there has been a considerable ejection of scoræ and cinders, it has been a constant observation that the lava soon made its appearance, either by boiling over the crater or forcing its way through the crevices in the conical part of the mountain. In the year 1794 there was a very tremendous eruption, and the mischief done was very considerable; the lava covered and totally destroyed 5000 acres of rich vineyards and cultivated land, and drove the inhabitants of Torre del Greco from the town, a great part of the houses being either burned or so injured as to be uninhabitable. The damage done in the vineyards by the ashes was also immense. The writer of this was on the top of Vesuvius in the month of May 1802; the mountain was perfectly quiet, with smoke issuing from a few crevices like the smoke of a small fire. The effects of the eruption in 1794 were very visible, especially in Torre del Greco. A very violent eruption has been mentioned in the papers about two years ago, but we have no authentic description either of its nature or of its effects. Sir William Hamilton observes that the inhabitants of Naples in general pay so little attention to the operations

of this volcano that many of its eruptions pass unnoticed by at least two-thirds of them. At the same time we know from undoubted evidence and enquiry on the spot, that, during a violent eruption which seems to threaten danger to the city, the Neapolitans carry their clamors and their superstition to almost an incredible height; going in troops to their churches, and particularly addressing themselves to their tutelary saint, Januarius. It is very probable, however, that the moment the danger is over they forget it. It is remarkable to observe with what readiness and sang froid they inhabit the towns and villas on the brow of the mountain, and how quickly they return to spots which have suffered the most severely. Torre del Greco exhibited in 1802 the appearance of a ruined town; but the inhabitants were living in it in perfect security; a church had been completely overwhelmed, i. e. covered with lava, leaving about the height of two moderate stories of the steeple visible. To this they were at that time adding a new church, which was nearly completed. We were assured upon the spot that, in the eruption 1794, the lava flowed down slowly like a river into the sea; that when it was opposed by walls or houses it accumulated and covered them, unless it found an easy vent elsewhere. It was added, and we firmly believe it, that the accumulated mass of liquid rock continued hot for a full twelvemonth. The inhabitants are not much alarmed by a stream of lava, which moves slowly, from which they can always remove themselves, and carry off their moveable property; the great danger consists in the clouds of burning ashes, which fly to a great distance, and the fall of which can neither be anticipated nor avoided. In 1794 we were told that one night an immense mass of matter issued with prodigious force from the crater, and rose to a great perpendicular height; it for the most part fell down into the crater again, leaving a considerable hollow, which in 1802 was already covered with a slight vegetable mould.

The Italian geologist Breislak has given an interesting description of the eruption of 1794; the most important particulars of which we shall select.

The present cone of Vesuvius, he says, is truncated, so as to form an inclined plane, sloping from the north-east to the south-west. The circumference of the summit, which forms the brim of the cauldron, is about 3000 feet; and at the bottom is distinguished an oblong plain, the greatest diameter of which is from east to west. Having since ascended several times to the top of the cone, I perceived that its depth had gradually diminished, and that the bottom of the crater became higher daily, owing to the different matter which falls down, especially from the almost perpendicular sides on the east and north. One can at this time easily scan the extent and depth of its mouth, but occasionally it is much encumbered, and sometimes totally clogged. In 1755 the bottom of the funnel rose so considerably, that it presented a vast plain only twenty-three feet beneath the brim, and in the midst of this plain was another cone from eighty to ninety feet high, with a small crater, from which the erup-



tions proceeded. Braccini has left us a curious description of the state of Vesuvius, after a long period of rest, and before the grand eruption of 1631. The whole of it, or at least the greater part of it, had become accessible. Having himself descended into the crater, he says, he found it covered with plants and trees, and that a road down it was practicable for the space of a mile; at this depth a very deep cavern was seen, which having passed, the way was again open for two miles by a very steep but at the same time very safe road, owing to the trees growing near to each other. At length a large plain presented itself, surrounded by a number of grottoes and caverns, which might be entered, but which the party were deterred from on account of their darkness. This plain, which was not accessible otherwise than by a very rapid slope, nearly three miles in length, must assuredly have been much beneath the level of the sea. When the volcano is at rest, vapors are seen to arise from the cauldron's brim, or from the interior of its sides, which are very perceptible. When the mouth of Vesuvius is observed from any distance, and during the prevalence of moisture in the atmosphere, a mass of vapor seems to rise from it which mingles with the clouds.

The western portion of Somma must be considered as connected with the cone of Vesuvius by a hill of smaller eminence, denominated Monte Cantaroni, on which is the hermitage del Salvatore. This hill is intersected by three valleys, that deserve to be examined with attention, on account of the quantity of primitive substances which the volcano has thrown thither during old eruptions. The northern valley is that termed La Fossa di Pharaone, near the plain, and Vallone della Vetrana, in its more elevated part, where the current of lava flowed in 1785. This vale, hollowed by rains, is the only interval between mount Somma and mount Cantaroni. South of this vale are two others, nearly parallel, the first called Rio Cupo, the second Fossa Grande, which, taking a direction from east to west, emerge in the plain of St. Jorio. Its northern side, nearly perpendicular, rises to a considerable height above the valley, and being composed only of cemented fragments of porous lava, called *capillo*, of masses of spongy lava, and other substances of an adhesive quality, is subject frequently to crumble and fall in large quantities. Along the whole extent of the southern side, at its upper part, is seen an ancient current of lava, which at first sight appears to be several strata of lava imposed one on the other, but which a little attention shows is but one current, in which horizontal chasms have been occasioned by refrigeration, and into which the wind has since introduced a slight quantity of vegetable earth. This lava is hard and compact; it contains but few fragments of augite or pyroxene, and seems to be an assemblage of leucites, the superficial crystalline lustre of which having been impaired, by decomposition, makes it resemble variolite in its exterior. Many detached masses of this current have fallen to the bottom of the valley. Each fall of matter brings down calcareous stones, mica, and mixtures of felspar and vesuvian. The lava of 1767, which threatened the villages of

La Barra and St. Jorio, discharged itself into this valley, which it filled to a certain height, and afterwards flowed further, spreading itself to the plain. As it is already covered by the crumbings from the flank, in order to examine it, the enquirer must repair to the plain of St. Jorio, in the neighbourhood of the chapel of St. Vito. Its grain is crystallised but fine, and oftentimes so close as to be nearly equal to petro-silex, or horn stone. It contains many small crystals of pyroxene and fragments of leucite, which is rarely found in its perfect form of crystallisation. The lava of La Scala passes beneath the garden of La Favorita. It is of the color of ashes, whitish, and of a crystallised grain. It contains many crystals of pyroxene, few of leucite, and small pieces of felspar, in groups in its cavities. This lava, where it is hewn on the sea-shore near La Cavalleria, is worthy of attention. Under a uniform bed, from fifteen to twenty feet in thickness, the lava is found divided into strata of from three to four feet: these divisions are formed by parallel and horizontal lines; and, where these are dug down to, the lava is found to have separated itself spontaneously into beds. Below them are large prisms, commonly hexagonal, which are disjoined with great ease: in some places these prisms, instead of the lower, are found in the upper part of the current. The same tendency to a basaltic conformation, which is noticed in the lava of La Scala, is observed again in the neighbouring current of Calastro. This, after passing through a defile below Vallevlonga, spreads to a broad front on reaching the sea. What most deserves observation in the lava here are the small crystallisations it presents, which seem to be the olivine of Werner. It is moreover of a deeper color than the lava of Scala, more porous, and like that, contains many crystals of augite and fragments of felspar. Next to this lava is found that of the eruption of 1794. Of the different eruptions of Vesuvius, this is the most recent, and was one of the most considerable.

Vesuvius had continued tranquil for a long time. On the 12th of June, 1794, towards eleven in the evening, a very violent shock of an earthquake was felt, which induced many of the inhabitants of Naples to leave their houses for the night. The tranquillity of the mountain did not, however, appear disturbed, either on the 13th, 14th, or 15th, nor did it exhibit any symptom of an approaching eruption; but towards nine in the evening of the last day many symptoms were manifested. The houses about the mountain experienced violent shocks, which gradually increased in force: a very powerful one was felt at ten o'clock in Naples and its environs. At this instant, on the western base of the cone, at the spot called La Pedamentina, and from the midst of ancient torrents, a new mouth disgorged a stream of lava. This opening was 2375 feet in length, and 237 in breadth. Scarcely had the stream of lava begun to flow, before four conical hills, each having its small crater (the third alone excepted, which had two distinct mouths), arose out of the stream itself. From these different mouths stones were darted into the air with great noise, and in a state so highly

ignited that they resembled real flames; the explosions indeed were so quickly repeated that they seemed but one, and formed a continued sheet of fire in the air, which received no other interruption than what was occasioned by the inferiority of force of some of the ejections. They sometimes vomited substances, I may say, in a fluid state, for they expanded in the air like a soft paste, so that one may imagine they were either a part of the running lava, or masses of old lava fused and projected. Some of these hills were contiguous one to the other; and it seems as if the force by which they were produced had met with obstruction to the disengagement of the substances at one point, and consequently effected several issues in the same line. The lava flowed in one body for some time, and at intervals flashes of light arose from the surface of it, produced by jets of hydrogenous gas, which disengaged itself from the lava, precisely in the same manner as the gases expand from the surface of a fluid. Its first direction was towards Portici and Resina, so that the inhabitants of Torre del Greco already bewailed the fate of their neighbours, and began their thanksgivings to the Almighty for their escape. Collected together in the church, they were still singing hymns of joy, and expressing their gratitude, when a voice announced to them the fatal news of their altered destiny. The stream of lava, on flowing down a declivity it met in its way, divided itself into three branches; one bearing towards Sta Maria de Pugliano, traversed a space of 2063 feet; another, directing its course towards Resina, flowed to the distance of 3181 feet; while the remainder of the stream, falling into the valley of Malomo, flowed towards La Torre. On reaching the chapel of Bolzano, it formed a branch towards the south-east, which terminated in the territory of Aniello Tirone, after having run the length of 1490 feet; the residue of the lava pursuing its course flowed upon Torre, presenting a front from 1200 to 1500 feet in breadth, and filling several deep ravines.

On reaching the first houses of the town, the stream divided according to the different slopes of the streets, and the degrees of opposition presented by the buildings. An idea may easily be formed of the accidents consequent on such a flood of fire; accidents which bear relation to the site of the manufactories, the thickness of the walls, and the manner in which they were assailed by the lava. Had not the mass of the stream suffered a diminution from the different divergencies noticed, not a single house would have been left standing in Torre del Greco. The lava, after a serpentine course through the town, at length reached the sea-shore. The contact with the water diminished the speed of its course: still the current flowed into the sea in a body 1127 feet in breadth, and advanced into it a distance of 362 feet. Its entrance into the sea was not marked by any singular phenomenon; it began to issue from the volcano at ten at night, and reached the sea-shore by four in the morning, continuing a very slow progressive movement into the sea throughout the whole of the 16th, and the following night. The main stream, from the point where it issued from the volcano to that at which it stopped in the sea, measured

12,961 feet. Its breadth varied greatly; in some places it scarcely exceeded 322 feet, but in the plain it spread to 1111; and at a medium, without risk of any great error, it may be computed to have been 725 feet broad. In thickness also it differed according to the depth of the hollows it filled; in the plain it was constantly from twenty-four to thirty-two feet thick: and, if its mean thickness be reckoned at the latter number of feet, it may possibly be nearest the truth. According to these data, the mass of molten matter is 1,869,627 cubic fathoms. During the eruption the convulsion of the mountain was so great that even the houses in Naples were shaken by it. Still it was not constantly alike. At the beginning the trembling was continual, and accompanied by a hollow noise, similar to that occasioned by a river falling into a subterranean cavern. The lava, at the time of its being disgorged, from the impetuous and uninterrupted manner in which it was ejected, by striking against the walls of the vent occasioned a continual oscillation of the mountain. Towards the middle of the night this vibratory motion ceased, and was succeeded by distinct shocks. The fluid mass, diminished in quantity, now pressed less violently against the walls of the aperture, and no longer issued in a continual and gushing stream, but only at intervals, when the interior fermentation elevated the boiling matter above the mouth. About four in the morning the shocks began to be less numerous, and the intervals between them rendered their force and duration more perceptible. One might compare them to the thunder heard in Italy during storms in summer, the loudest claps of which are succeeded by rumbling sounds, which gradually die away.

While I was making my observations on this grand eruption at the foot of Vesuvius, its summit was tranquil, and no phenomena were visible about its crater. I passed the night at sea, between Calastro and La Torre, to have a nearer view of this great operation of nature, and to prove the truth of the opinion generally received, that great eruptions are accompanied by extraordinary phenomena in the sea. A more grand spectacle there could not be. On one of those serene and brilliant nights, known only in the delightful climate of Naples, a majestic stream of fire, 11,868 feet in length, and 1483 in breadth, was seen at the foot of Vesuvius; its reflected surface formed in the atmosphere a broad and brilliant aurora borealis, regularly spread and terminated at its upper part by a thick and dark border of smoke, which, dilating itself in the air, covered the disc of the moon, the shining silvery light of which was enfeebled and obscured. The sea again reflected the illuminated sky, the surface of it corresponding with this portion of the atmosphere appearing as red as fire. At the source of this river of fire inflamed matter was incessantly spouted out to a prodigious elevation, which, as it diverged on all sides, resembled an immense fire-work. On the sea-shore, finally, the mournful spectacle of the conflagration of La Torre completed the picture. The vast clouds of thick black smoke which rose from the town, the flames which occasionally crowned the summits of the houses, the ruins of the buildings, the noise of the falling palaces and houses, the





MOUNT VESUVIUS.



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*J. Sherry sculp.*



rumbling of the volcano,—these were the principal incidents of this horrible, yet sublime scene. The ruins of Pompeia, buried beneath heaps of drosses and powders, did not certainly present a spectacle near so striking. To these objects, so powerfully calculated to fix the senses, was added another, which forcibly touched the heart; this was a doleful group of fifteen thousand persons, bewailing the destruction of their city and property, who had had but a moment's notice to flee and abandon their homes for ever, and were reduced to become wanderers, and dependent on the world for refuge.

About dawn the summit of Vesuvius ceased to be visible: it was covered with a thick cloud, frequently furrowed with lightning. This cloud gradually spread itself, and in a little time overshadowed the gulf, the city of Naples, and its vicinage. It was formed of a large quantity of that fine sand called ashes, and prevented all sight of the fire of the volcano. The sun, as it appeared above the horizon, presented a still more dismal picture. From the abundance of ashes in the air, it seemed more pale than during the strongest eclipse: and a black scarf appeared to be spread over the whole of the gulf and the country. At the extremity of the horizon, towards the west, the day was more clear, while the light at Naples was fainter than twilight; and, with Pliny the younger, one might have said, 'Jam deus alibi illic nox omnibus nigrior densiorque.'

During this mournful night the air was perfectly unagitated, and the sea calm: it was not disturbed even in the slightest degree, at least in the gulf of Naples. The slightest action of the volcano on it would have been perceptible at the base of the mountain, and I was within a distinct view of this part of the sea; but its influence on that element was absolutely null.

While one current of lava flowed over the western flank of Vesuvius, spreading ruin and desolation, another fell down its eastern slope, from an opening of inferior height, and a greater distance from the summit. This current was not visible at Naples: all that was perceived of it was a great light in the atmosphere, produced by reflection from the rolling fire. At first it took an eastern direction, turned afterwards to the south, and descended to the spot called Cognolo. There it fortunately found the valley of Sorienta, sixty-five feet wide, 121 deep, and 1627 long. This valley the lava filled; but, as the volcano still continued to emit fresh matter, the current afterwards spread into the plain of Forte, near to Pozzelle, where it divided into three branches; one proceeded towards Bosco, another towards Mauro, and the third to the plain of Mulara. The length of this current of lava was not less than an Italian mile; but, as it flowed constantly over old lavas, it did but little harm, merely laying waste and occupying a small extent of vineyard. From the spot where it diverged from its first direction, it projected a small branch in a continued line: falling to this point over a very rapid slope, the speed with which it flowed must have been considerable: and a portion of its mass preserving its first impulse, naturally fell

in this small stream, in which were four mouths in the shape of an inverted cone, the base of which is in the surface of the lava. This stream terminates in a small and regular hill of a conical figure, on the summit of which are two mouths in form of inverted cones. The dimensions of this second current are nearly half those of the first; consequently the mass of the whole is adequate to 2,804,440 cubic fathoms.

The coincidence and perfect resemblance of these two currents of lava sufficiently prove that they had but one common origin, and but one cauldron in which the matter was fused of which they were composed. How great then must that recipient be in which such an enormous mass could be contained! And what powerful exertion of strength must have been required to break through the mountain in such opposite directions! The lava, agitated by the expansion of elastic fluids, made its first efforts to liberate itself on the eastern flank, and found a passage; but the resistance it met with from the mountain no doubt occasioned its reflux or rebound against its opposite flank. The western current, taking its departure from a more elevated mouth, more quickly terminated its course; but the cauldron chiefly emptied itself by the eastern opening. The lava issued from it very slowly, compared with the celerity with which that flowed which proceeded from the eastern mouth, because it was no longer driven forward, or compressed by the total mass, which was already greatly diminished.

On the morning of the 16th the lava ceased to flow over the western side, and the mouth of the volcano began to resume activity. The whole of its cone was covered with a very thick rain of ashes or powders, which totally hid it from sight, so that nothing could be distinguished on Vesuvius, which was wholly inaccessible. In this state it continued four days, during which many shocks of earthquakes were felt, and loud claps of thunder were heard. Thunders raged in every part of the adjacent country, and the flashes of lightning, by which they were accompanied at intervals, for an instant allowed a view of the mountain through the darkness in which it was involved by the rain of powders. This darkness was so prodigiously great that at Caserto, and other places ten or twelve miles from Vesuvius, it was impossible to walk the streets at mid-day without torches, and that circumstance was renewed which is related by Pliny on the occasion of the eruption in the time of Titus, '*faces multæ, variaque lumina solvebant obscuritatem.*' It is utterly impossible to determine with precision the quantity of ashes or powders that fell in the course of these days, as it was different in different places, according to the direction of the wind; it is, however, computed, on the base of observations at different places, that fourteen inches and six lines in depth fell on an area the radius of which is three miles, the summit of Vesuvius being the centre.

After the eruption of 1794 the cone lost much of its elevation; a portion of it, after being shaken and even raised by the convulsion, sinking down into the crater and almost filling up the cavity. The fire raging in the hollow of the

mountain, having thus lost its upward vent, burst through the side and poured out the lava, which rolled down the declivity all the way to the sea, burning up the cultivated ground, and covering with a fluid which afterwards became solid and hard the chief part of the town of Torre del Greco. The total number of great eruptions on record is above thirty, reckoning from the celebrated one of A.D. 79, which proved destructive to Herculaneum. One of the latest, though not most formidable eruptions, took place in the end of the summer of 1819. The mountain had discharged almost daily small quantities of fire and lava; but on the 27th of July a thick smoke, accompanied by flames, and the discharge of red hot stones, rose from the crater. The shocks succeeded each other, and seemed to cause a trembling on the summit of the mountain. Next day, the crisis took place; one side of the crater was suddenly rent with a dreadful crash, and its highest point, with the chief part of its south-west side, fell in. From the breach thus opened there burst forth a great stream of lava; and this is at present (1829) the principal opening, although eruptions take place sometimes above, and sometimes below it, according to the pressure of the melted substance in the interior of the crater. The permanent effect of this last eruption has been to lower the height of the summit.

**VETCH**, *n. s.* } Lat. *vicia*. A plant with a  
**VETCH**'*x*, *adj.* } papilionaceous flower, pro-

ducing a legume: made of or abounding in vetches.

If to my cottage thou wilt resort,  
 There mayest thou ligge in a *vetchy* bed,  
 Till fairer fortune shew forth his head. *Spenser.*

Where *vetches*, pulse, and tares have stood,  
 And stalks of lupines grew. *Dryden.*

An *ervum* is a sort of *vetch*, or small pea. *Arbutnot.*

**VETCH**, in botany. See **VICIA**, and **RURAL ECONOMY**.

**VETCH TAKE**. See **TARGIONIA**.

**VETCHLING**, in botany. See **LATHYRUS**.

**VETERAN**, *n. s.* & *adj.* Lat. *veteranus*. An old soldier; a man long practised in any thing: long experienced.

The Arians, for the credit of their faction, took the eldest, the best experienced, the most wary, and the longest practised *veterans* they had amongst them. *Hooker.*

There was a mighty strong army of land-forces, to the number of fifty thousand *veteran* soldiers. *Bacon.*

The British youth shall hail thy wise command,  
 Thy tempered ardour, and thy *veteran* skill. *Thomson.*

**VETERINARIAN**, *n. s.* Lat. *veterinarius*. One skilled in the diseases of cattle.

That a horse has no gall is not only swallowed by common farriers, but also received by good *veterinarians*, and some who have laudably discoursed upon horses. *Broune.*

## VETERINARY ART

**VETERINARY ART**, from *veterinarius*, the name by which a farrier was known in the time of Columella. This term seems itself deduced from *veterinus*, a term applied by Pliny to the horse, in allusion we presume to the staid and steady disposition of that noble animal when properly reduced to the hand, and which, like the *evocati* or veterans of the Romans, is every way worthy of our trust and confidence.

### PART I.

#### OF VETERINARY SURGERY.

In conformity to the general usage we may adopt the denomination surgery, in a more extended sense, to denote the curative treatment or all those diseases which are incident to horses, since the mere administering of a ball requires a certain adroitness in the manual operation; and we have for the sake of convenience attempted a classification of the diseases of the horse, which will answer the purpose of an index.

The laying a foundation for an arrangement of caballine maladies, besides habituating the mind to the logic of method, admonishes the practical reader to renew his observations and to cultivate a more intimate acquaintance with the respective situations and tendencies of disorders; for experience has taught us that nothing has a greater influence in sharpening our perceptive faculties than the carrying of a rational outline of a treatise of this kind in the head. Nor ought we to forget another species of utility

which the formality of an arrangement possesses, which is, that it helps those who are otherwise unfurnished with a test to discover how far the writer himself is able to fulfil his engagements with the reader.

Had our limits permitted us we should have been glad to preface this article with a history of this valuable animal, by illustrating and discussing the merits of those elegant observations which are to be found in the writings of Xenophon, Varro, Virgil, Columella, &c., and by means of which it would have appeared that, though the surgical treatment of disorders has shared in the modern improvements, yet the ancient methods of studying, training, and humoring the disposition of the horse were as choice and excellent as the diction in which they are described.

#### SECT. I.—CLASSIFICATION OF THE DERANGEMENTS IN THE SOLIDS AND FLUIDS OF A HORSE'S BODY.

##### Order I.—SOLIDS.

Alterations in the arrangement of the molecules which compose an organ, or as they are otherwise called changes of continuity. The essential character of a genus is derived from the nature of the texture which is effected.

##### Genera I.—BONES.

Species 1. *Bone spavin*, an osseous enlargement upon the inner side of the hock.



## VETERINARY ART.

2. *Ring cone*, bony excrescences about the pastern.

3. *Splints*, bony protuberances upon the fore-leg, near the knee-joint.

4. *Spring halt*, lameness arising from diseased vertebræ.

5. *Poll evil*, an abscess arising from an inflammation in the synovial surface of the first vertebra of the neck and adject ligaments.

6. *Fistula of the withers*, a deep seated abscess, arising from an inflammation in the spinous processes of the dorsal vertebræ.

7. *Sore mouth*, sore in the lower jaw between the tusk and the first grinder.

8. *Anchylosis*, a preternatural apophysis of bony matter upon a joint.

9. *Enostosis*, superfluous formation of bony substance unlimited in its situation.

### Genus II.—LIGAMENTS AND TENDONS.

Species 1. *False-quarter*, a change in the texture and color of the hoof, arising from an injury of the coronary ligament.

2. *Strain of the hip joint*, injury in the round ligament of the hip joint.

3. *Breaking down*, a disruption of the great suspensory ligament of the leg, or of the ligaments of the pastern.

4. *Wind-galls*, distended bursæ mucosæ.

5. *Curb*, swelling on the back part of the hock.

6. *Shoulder strain*, rupture of the membranes about the shoulder-joint.

7. *Strain in the back sinews*, a rupture of the membranes which form the lower boundary of the synovial cavity on the back part of the fore leg.

8. *Strain of the fetlock joint*, swelling of that joint with lameness corresponding in degree.

9. *Strain of the coffin joint*, with scarcely any lameness.

10. *Strain in the loins*.

11. *Bog spavin*, rupture of the bursæ mucosæ on the inside of the hock.

12. *Thorough-pin*, rupture of the bursæ mucosæ on the outside of the hock.

13. *Strain of the knee joint*.

14. *Bursal swellings of the elbows and knees*.

### Genus III.—CELLULAR FISSUE.

Species 1. *Quittion*, an ulcer produced by an injury on the coronet.

2. *Capelet*, a swelling upon the point of the hock.

3. Saddle or harness galls, warbles, navel galls, &c.

4. Bruises by violent and continued pressure.

5. Acute general *Rheumatism*, inflammation of the muscular system.

6. Rheumatic affection in the hock joint, with a morbid irritated state of the stomach.

7. *Chest founder*, rheumatic affection of the muscles of the chest, fore-leg, and diaphragm.

8. *Acute founder, or chill*, a general stiffness of the muscular system.

### Genus IV.—INTEGUMENTS, SKIN.

Species 1. *Surfeit*, pimples changing into scabs.

2. *Hide bound*, skin from a deficiency of nutritive juices becoming rigid.

3. *Mange*, incessant itching and a desquamation of the cuticle.

4. *Mallenders*, a scabby eruption upon the flexure of the knee joint.

5. *Tallenders*, a scabby eruption upon the flexure of the hock joint.

6. *Cracks in the heels*.

7. *Crown scab*, a scabby eruption upon the coronet, followed by loss of hair.

8. *Rat tails*, a scabby eruption upon the back part of the leg, entering in lines from the foot lock upwards.

9. *Treads*, superficial injuries in the heels.

10. *Grease*, a discharge of fetid matter from the heels.

11. *Broken knees*.

### INTEGUMENTS, FOOT.

12. *Sand cracks*, a fracture in the weakest part of the hoof.

13. *Gravelling*, formation of matter occasioned by the interposing of gravel between the sole and the crust.

14. *Corns*, ruptures of the sensible sole and laminæ which occasion the blood to penetrate into the pores of the horn.

15. *Bruise of the sole*.

16. *Over-reaching, over-lashing, over-stopping*, injuries in the heel, higher and nether attain.

17. *Thrush*, frog becoming rotten from long standing in filthy litter.

18. *Canker*, neglected thrush extending to the laminated surface and coffin bone.

19. *Pomiced feet*, an internal thickening of the hoof.

20. *Groggy feet*, reeling, occasioned by weak joints.

21. *Sit fasts*, dead skin upon the back

### Genus V.—ABSORBENT SYSTEM.

Species 1. *Farcy*, inflammation of the lymphatic glands, exhibiting small tumors on the inside of the legs, lips, face, &c.

2. *Glanders*, ulceration of the lymphatic glands affecting the conglomerate.

3. *Lampas*, symptomatic swelling in the mouth.

4. *Bags or washes*, swellings just within the corners of the mouth.

### Genus VI.—CONGLOMERATE GLANDS.

Inflammation of the tonsils terminating in an abscess under the jaws.

*Vives or ives*, swelling of the parotid gland.

*Glanders*, swelling of the glands under the jaw and a gluey discharge from the nostrils.

### Genus VII.—SANGUIFEROUS SYSTEM.

*Blood spavin*, varix or enlargement of the saphena vein, on the inside of the hock.

### Genus VIII.—INTERNAL MEMBRANES.

Species. *Hernia (eproc)*, a bud, a rupture of the peritonæum.

### Genus IX.—BRAIN AND NERVOUS SYSTEM.

Species 1. *Epilepsy*, spasmodic contraction of the nerves.

2. *Spasms*, twitchings of the muscles.

3. *Stringhalt*, irritation of a nerve occasioned by mechanical obstruction.

4. *Titanus*, spasmodic contractions of the muscles of the lower jaw.

Order II.—DISEASES ORIGINATING IN AN ALTERATION OF THE FLUIDS OF A HORSE'S BODY.

Genus I. SANGUIFEROUS SYSTEM.—Inflammation occasioned by an unusual quantity of blood determined to any particular part or organ, or in a general excess of the red fluid.

Species 1. *Synochus* (συνεχω, contrain, alluding, we presume, to the general superabundance of constricting sensation of annurcled blood vessel), blood in the system.

2. *Phrenitis* (φρην, diaphragm, by a metaphor, the mind which divides or discriminates), inflammation of the brain.

3. *Peripneumonia* (περι, about, and πνευμων), inflammation of the lungs.

4. *Pleuritis* (πλευρα, side, membrane which lines the chest or thorax), inflammation of the pleura.

5. *Influenza* and *catarrhus* (κατερρεα, to flow downwards), inflammation of membranes occasioned by the acrimony of the humors.

6. *Gastritis* (γαστηρ, genitive γαστρος, the belly), inflammation of the stomach.

7. *Peritonitis* (περιτονειον, web which encloses the bowels, from περιτεινω, extend round about), inflammation of the peritoneum.

8. *Enteritis* (εντερα, inwards), inflammation of the coats of the intestines.

9. *Splenitis* (σπλην, the spleen), inflammation of the spleen.

10. *Hepatitis* (ήπαρ ήπατος, the liver), inflammation of the liver.

11. *Nephritis* (νεφρος, a kidney), inflammation of the kidneys and bladder.

12. *Ophthalmia* (οφθαλμος, the eye) inflammation of the eyes.

13. *Psorophthalmia* (ψορα, a scab, and οφθαλμος), inflammation of that part of the conjunctiva which lines the eyelids.

14. *Poditis* (πους ποδος, the foot), inflammation of the foot.

15. *Anticore*, painful swelling about the breast and belly.

#### Genus II.—ABSORBENT SYSTEM

Species 1. *Anasarca* (ανα, upon, σαρξ σαρκος, flesh), general dropsy. Superabundant humors in the cellular substance, under the skin of the body.

2. *Hydræcus* (υδωρ, water, ελκος, an ulcer), water farcy. Accumated water producing ulceration.

3. *Ascites* (ασκος, a leathern bottle, from a fancied resemblance which the body bears to that vessel), water in the cavity of the abdomen.

4. *Hydrothorax* (υδωρ, θωραξ, the chest), water in the cavity of the chest.

5. *Hydropericardium*, water within the bag which contains the heart.

6. *Hydrocephalus* (υδωρ, κεφαλη, head), water within the meninges of the brain.

7. *Hydrocnemia* (υδωρ, κνημη, leg), dropsy of the legs.

8. *Diarrhæa* (δια, through, ρω, flow) unnatural defluxion of fluid down the intestinal canal.

9. *Dysenteria*, defluxion acrimious, so as to

produce an inflammation in the inner coat of the intestine.

10. *Tympanitis* (τυμπανον, a timbrel or drum), windy colic. Air generated in the alimentary by an excess of fermenting juices.

11. *Hydrospanis* (υδωρ, moisture, σπανις, want), dry gripes.

12. *Scolecia* (σκοληξ, a worm), worms. Putrefactive tendency in juices generating worms.

13. *Icterus*, jaundice. Inactive state of the absorbent vessels of the liver.

#### SECT. II.—DETAILS.

##### Order I.

##### Genus I.—DISEASES OF THE BONES.

Species 1. *Bone-sparvin* is a hard tumor or excrescence formed on the inside of the hock; it sometimes occurs on the lower part of the hock, at others it is more deeply seated in the centre of the joint; the latter is by far the most painful. *Cure*.—Firing, and blistering immediately after.

2. *Ring-bone*. The term ring-bones is given to hard swellings extending round the fore part of the foot in the form of a ring, on the lower part of the pastern near the coronet; they occasionally appear a little above the coronet only on each side, they are then termed splinters of a ring-bone. The causes of these affections are various; they are produced by strains, blows, and other causes, which occasion a diminution of synovia, when the great and little pastern bones enter more closely into contact with each other, producing stiffness of the joint. The former as frequently arises from a blow as any other cause, the latter from a stub; they are said to be occasionally hereditary. *Cure*.—Firing the only remedy likely to do good.

3. *Splints*. Hard excrescences which form on the shank bone of the horse are termed splints; they vary in size and shape, and are sometimes so large as to press against the back sinew, causing stiffness, and in some instances decided lameness. Those of a smaller kind are seldom of much importance, unless situated on or near the joint. The treatment in all these cases requires but little variation. The horse will be very lame on the first appearance of these excrescences and for some time previous, requiring judgment on the part of the practitioner to ascertain the cause. Gentle treatment must be had recourse to in the first instance, and the following blister will be found efficacious:—Take Spanish flies, euphorbium, of each two drachms and a half; Egyptiacum, strong vinegar, of each two ounces; spirit of turpentine, water of pure ammonia, of each ten drachms; oil of thyme one ounce. Mix and put into a bottle, shaking previous to using. Lameness from a splint may sometimes be removed by placing a pledget of old linen, wet with goulard or saturnine lotion, on it, and confining it with a bandage kept constantly wet. I have seen a good effect from diluted vinegar also. Saturnine lotion.—Super-acetate of lead one ounce, vinegar four ounces, water one pint. Mix.

4. *String-halt*. The string-halt, Mr. White observes, has been properly enough named blind



spavin. It is thought by the French to be of the same nature as bone spavin, the bony excrescence being concealed, or on the outside of the small tarsal bones, and out of sight. If any remedy is thought necessary for this, firing should be preferred; but this will generally be found to fail. A few years ago, says Mr. White, I had the pleasure of spending a day with the late Dr. Jenner at Berkeley, when he informed me that string-halt depended upon a disease of the spine, and showed me several vertebrae which afforded a proof of it. From what I have since observed I am satisfied that this is the case. Firing and all other operations must therefore be useless.

5. *Poll-evil*. This disease derives its name from its situation, which is between the poll-bone and the first vertebra of the neck, and is produced by a mangy horse rubbing his head under the manger, and sometimes lifting it up suddenly when frightened; also by hanging back upon his halter. Repeated injuries of this kind produce at length inflammation of the first vertebra of the neck, and the matter that forms in consequence being so completely confined spreads and renders carious the under surface of the ligament of the neck as well as the posterior part of the occipital bone, and sometimes of the atlas or first bone of the neck also. This disorder then is precisely of the same nature as fistula of the withers, and requires a similar treatment. But it would seem that the poll-evil is caused rather by an over-stretching of the neck, or by a frequent effort to extend the ligaments which connect the first two bones of the neck, or those which unite the first two bones of the head. We have placed this disease among the maladies of the bones to exhibit the importance which it bears, though, if we regard the origin of the evil, it would be more consistent to rank it under the genus of ligamentous disorders.

6. *Fistula of the withers, or winding ulcer*. The above-named injury, although it derives its origin from the severe pressure of the fore part of the saddle, and, if taken in time, would be easily cured, is, from neglect and repeated bruises, extended to a dangerous inflammation of the spinous parts of the joints of the back bone. The result is that an internal abscess is formed, and searches in various directions inwards, until at last it appears on the surface in form of a violent inflamed ulcer. In this advanced stage of the disease a moderate incision must be made to allow the suppurated matter to pass off. If upon examination the seat of the disease cannot be discovered, tents of tow, steeped in solution of blue vitriol, must be forced into the wound as far as possible; and, in about a week, when the coat or core of the pipes or channels has been removed, the probe must be used in order to determine the winding direction of those pipes, and the extremity of the diseased part. When it is found that the pipes are not destroyed, and the seat of the wound is ascertained, if it appears from the feel of the probe that the bare bone is sensible to its touch; in such case the bone should be well scraped, and afterwards a few dressings of Friar's balsam, or tincture of myrrh, will effect a speedy and perfect cure. In some cases, where the caustic application has, in the first instance, destroyed

those pipes, any further operation of scraping the bone will be unnecessary, and the wound may be perfectly healed by dressings of Friar's balsam, or tincture of myrrh, and sprinkling a little of the following powder on the part before dressing it every second day:—Take white vitriol and burnt alum of each three drachms; white lead, yellow rosin, bole armoniac, of each one ounce and a half. Mix well together.

7. *Sore mouth*. During the time that horses are breaking they are often hurt in the mouth by the pressure of the bit, especially in that part where it bears when they are put upon the bit, as it is termed; that is, when their noses are reined in towards the chest. The bit then bears on the under jaw between the tush and the first grinder. The bone in this part being thinly covered with gum is often bruised and inflamed; and being neglected, or rather the pressure being still continued, it becomes carious, and a troublesome sore or sinus is the consequence. This sore, in feeding, becomes filled with masticated hay, which being discovered is supposed to be the cause of the sore; and, as common hay cannot be supposed to be capable of such an effect, it is attributed to what the grooms term squirrel-tail grass, that is wild barley.

8. *Anchylosis*. This is a deposition of bony matter thrown out in the joints, and arising from hurts and bad treatment of punctures of the joints; every joint is liable to it. The effect is to render the joint completely stiff and useless. We can do nothing to remove it, but a great deal to prevent it.

9. *Exostosis*. This is an excess of bone, a super-abundance of osseous matter being thrown out to various sizes. Pressure and blistering, in the first instances, will be proper to try; further applications are useless.

#### Genera II.—LIGAMENTS AND TENDONS AND CONNECTING MEMBRANES AS BY CONSEQUENCE TISSUE CELLULAR.

Species. 1. *False quarter*. When the coronary ligament has been much injured by treads or other contused wounds, it sometimes forms horn of a lighter color than the rest of the hoof, and less perfect, often leaving a fissure or seam from the top to the bottom. Sometimes the whole quarter is imperfect, and incapable of bearing pressure; therefore in such cases a bar shoe is necessary, by means of which, when the false quarter is kept properly pared down, it will be at some distance from the surface of the shoe, and thus be always free from pressure.

2. *Strain of the hip joint, femur, hurdle bone, whirl bone, or round bone*. Injuries of this kind are frequently brought on by negligence in riding or driving, and sometimes from a sudden slip of the animal's hind feet on a bad road or pavement, whereby he is thrown upon his side; in some cases the head of the bone or cup of the joint may be affected; in other cases the thigh and hip joint are so severely injured that violent inflammation and lameness of the parts ensue. When the strain has been of a slight nature it may not be perceptible at first, further than a tenderness in leaning on the limb affected when in exercise; but, if he has been left to stand for

a short time in the stable, and he be taken out, the lameness will be obvious. In this case the horse must be kept quiet in stable for some time afterwards, until by repose he gradually recovers his strength. In severe strains a strong blister should be applied to the part, and if necessary it would be expedient also to fire the limb injured, and of course bleed and purge.

3. *Breaking down.* This accident often occurs in racing, and sometimes in hunting, but very rarely upon the road. A strain in the back sinews is sometimes called by this name; but, when a horse breaks down, the fetlock joint, when he rests on that leg, absolutely bears upon the ground. This accident is supposed to depend on a rupture of the great suspensory ligament of the leg; but sometimes it is occasioned by a rupture of the ligaments of the pastern, and a consequent dislocation of the small with the large pasterns. If we examine the tendons and ligament, on the back part of the shank, we shall find that the great flexor, or perforans tendon, is supported by a strong ligament, nearly as large as itself, which proceeds from the back part of the knee, or from the upper and posterior part of the great metacarpal or canon bone. About three or four inches down it joins the perforans tendon, and becomes intimately mixed with it. If this part is examined it will clearly appear that a rupture of the suspensory ligament of the fetlock joint would not bring the horse down upon his fetlock joint unless this suspensory ligament of the perforans tendon were to give way also.

4. *Windgalls.* The term windgall is given popularly to swellings situated on the joints, and which are enlargements of the bursæ mucosæ, or mucous bags, with which every joint is furnished, to contain a lubricating oil. These enlargements are termed, according to their situation, bog spavin, thorough pin, capped hock or capulet, windgalls of the knee joint and of the elbow. The diseased enlargement of the bursæ mucosæ arises from hard work, and, if we attempt a cure, this must be discontinued. Horses once affected in this way are always liable to a return if worked hard again. Let it be particularly remembered that this tumor is never to be opened: the worst of consequences would follow such a step. Pressure by flannel bandages and pads, placed between the folds, upon the tumor, and continued a considerable time, with strict rest, will often cure, and should be first tried in all cases. Then, if not successful, blister the part; or perhaps firing it would be better, as the marks of the iron leave a contraction in the skin, which acts as a bandage perpetually. In using pressure by bandage and pads, a solution of sal ammoniac and vinegar should be poured upon it occasionally, so as to wet the bandage through. Goulard water may be used in the same manner.

5. *Curb or strain of the hock.* This disease was formerly considered as a kind of exostosis, but now it is properly admitted under the head of strains. The back part of the hind leg is the seat of this disease, arising from the articulation of the same bones which are affected in spavin, and is succeeded by the formation of a considerable tumor a little below the hock. It is

generally the consequence of a strain, accompanied with inflammation; the coagulable lymph which is thrown out is often left, and causes a hardness to remain. If the affection be observed in its early stage, those applications which are used in strains of the back sinews will generally effect a cure. Should the pain and substance however continue ten or twelve days after having had recourse to this treatment, a more powerful plan must be pursued. When this is the case cut the hair close, and use the following blistering spirit:—Take euphorbium, Spanish flies powdered, of each two drachms; oil of thyme, spirit of turpentine, pure ammonia water, of each one ounce; vinegar, egyptiacum, of each two ounces. Let them be put into a bottle, and well shaken before they are used. Let the part affected be well rubbed with the hand for six or seven mornings following. After which turn the animal out to grass for five or six weeks; if at this period the curb should not be entirely removed, the blistering spirit should be again resorted to.

6. *Shoulder strain.* Strains of the shoulder appear trifling in some cases at first, and lameness is not observable until the horse cools; in strains of a severe or desperate nature the animal can hardly lay his foot to the ground, and stands upon three legs. In all slight cases copious bleeding, and confinement to the stable, in a spacious stall, so that he can move about, will be sufficient; but in severe strains it will be necessary, besides bleeding, to introduce a rowel to the chest, and if that be not effectual in removing the strain, the shoulder must be blistered, or the same embrocation as prescribed for strain of the loins should be well rubbed into the chest and shoulder. Send him out to graze in a well enclosed field, and he will gradually recover.

7. *Strain in the back sinews, or clap.* This accident may happen in either fore or hind legs, and may be either a simple extension of the tendons, or accompanied with some degree of laceration of the cellular substance or ligaments. It occurs generally from down-leaps, false steps, or sudden attempts at recovering the feet from a slip. There are frequently hard lumps remaining after the inflammation abates and the strain is recovered, which arise from the coagulable lymph being thrown out in the accident and ultimately becoming callous. These lumps are early felt; they are not of very great consequence, but in general a slight lameness accompanies them, which goes off when the animal trots a little and becomes warm; but, if the horse be much worked, the lameness returns from the constant action upon the parts. The treatment will be in the first instance nearly the same as in other strains; next bleeding, purging, and cold applications to the injured limb, with a moist diet. Cold poultices should be applied every morning and night, which should enwrap the limb from above the knee joint downwards. The best poultice is—linseed cake six ounces, bran (sufficiently wetted) three pints; mix. It will be more beneficial to look to the horse's constitution, and lessen the action of the blood vessels according to the strength and irritability of the animal, than to depend on local remedies. When the inflammatory stage has gone by it will be



then right to use rubbing with liniments and oils, such as camphorated liniment, soap, and spirits, &c., and to bandage the limb. If this plan do not quite remove the swelling in a fortnight, a blister must be applied; and, when healed, the horse turned out to grass. It may be a long time before a perfect cure can be established, and the only hope is in repeated blisters at the interval of a month between each. When, however, full trial be given to this, firing may be resorted to.

8. *Strain of the fetlock joint.* The symptoms of this injury are similar to those of strain in the back sinews; the fetlock joint appears swollen and inflamed, attended by lameness. The horse must be copiously bled, and kept tranquil in a roomy stall; in slight cases this will be sufficient. A few emollient poultices, in bad cases, will be necessary, and the body should be kept cool by moderate aperients. Firing the limb is frequently practised by veterinarians as a sure preventive against the recurrence of the injury; this operation also tends to strengthen the joint. After a rest of about a fortnight, in the stable, he may be turned out to grass in an enclosed field, when he will gradually recover.

9. *Strain of the coffin joint.* Those accidents are more difficult to ascertain at first than strains in any other part of the horse, as the lameness is hardly perceptible for some time after the injury has been received. In gentle exercise the coffin joint is excited to little or no action; but in a quick pace a tenderness and slight lameness will be observable. Unless remedies be applied in proper time, strains in the coffin joint are the most difficult to cure. The animal should be bled freely, his bowels kept cool by moderate purgatives, and the foot, from the fetlock joint down, should be well poulticed every morning and night with Goulard water and linseed meal. He should be kept quiet, and the poultice continued for a week or ten days, and longer if the case require it. After this he may be turned out to grass until the joint is restored to its original strength and flexibility.

10. *Strain in the loins.* The symptoms of this strain are either a partial stiffness of the back, and an involuntary yielding of the horse to any weight placed upon him, or, in very bad cases, general lameness ensues. The animal should, as soon as possible after the accident, be freely bled, which, together with rest, may be sufficient in slight injuries; but, if otherwise, in addition to bleeding, even to faintness, the following embrocation should be applied to the loins; viz.—Liquor ammonia of two ounces, oil of turpentine one ounce, olive oil three ounces. A fresh sheep skin, with the fleshy side in, should be laid across the strained parts.

11. *Bog spavin.* This is a swelling on the inside of the hock, rather towards the fore part: the large vein, which is so conspicuous on the inside of the leg, passing over it. It depends either upon a distension or rupture of the membranes which form the synovial cavity, or bursa mucosa, through which the great flexor tendon passes. The swelling is soft and yielding to the pressure of the finger, but rises again as soon as the pressure is removed. Sometimes, however,

there is a swelling on the outside of the hock also, and in that case the fluid or synovia which the swelling contains may be forced from one to the other. Only remedy, firing and sufficient rest, but not always necessary.

12. *Thorough pin.* Of the same nature, and requires the same treatment, as bog spavin.

13. *Strain of the knee joint.* There is a correspondence between the knee joint of the horse and the human wrist, and the stifle joint with the human knee. When the knee joint is strained it is mostly accompanied by that common accident: called broken knees, and is in consequence distinguished with difficulty. Bleeding and rest must, however, be employed here, as, should the case turn out to be simply a broken knee, bleeding will be found extremely serviceable.

14. *Bursal swellings of the elbows and knees.* The elbows frequently are affected by such swellings, often occasioned by the shoes in lying down when the horse sleeps with his fore legs doubled under him. Sometimes there is a hard tumor formed by the same cause; in this case the tumor might be dissected out safely. The swellings on the knee occur seldom, and are of no consequence.

#### Genera III.—CELLULAR TISSUE.

Species 1. *Quittor.* This injury arises when a horse, in frosty weather, endeavours to recover himself from falling on his side, which causes the animal to step in a most violent manner on the inside foot; it also is occasioned by punctures, &c. Quittor is, properly, a degenerative and ulcerative state of it, generally attended with pipes, and the inner parts seldom escape injury. In such cases the winding and extent of the pipes should be ascertained by the probe. Then prepare a piece of light brown paper, cut into small pieces, and grease them with a light surface of lard; after this get some corrosive sublimate, finely powdered, and sprinkle it over them; then roll them round, and twist them at each end, and pass them, by the aid of the probe, one after the other successively, to the extremity of the pipe, until it is completely stuffed; after this lay on a small pledget of tow, and bandage the part. In about a week remove the bandage, when the core will be extracted, and an extensive open sore will be visible. By this process the extent of the wound will be ascertained. Tents of tow or lint should be then steeped in solution of blue vitriol, and lodged in the bottom of the wound; when the carious parts are sufficiently corroded, apply a few dressings of tincture of myrrh, or Friar's balsam, and in a very short time the animal will be in an advanced state of convalescence.

2. *Capellet, or capped hock.* There are particular swellings which horses are subject to, or a wenny nature, which grow on the heel of the hock, and on the point of the elbow, and are called by the French and Italians capellets: they arise often from bruises and other accidents; and, when this is the case, should be treated with vinegar and other repellers; but, when they grow gradually on both heels or elbows, we may then suspect the blood and juices in fault; that some of the vessels are broke and juices extra-

sated; in this case the suppuration should be promoted by rubbing the part with marsh-mallow ointment, and, when matter is formed, the skin should be opened with a lancet in some dependent part towards one side, to avoid a scar: the dressings may be turpentine, honey, and tincture of myrrh. The relaxed skin may be bathed with equal parts of spirit of wine and vinegar, to which an eighth part of oil of vitriol may be added. The contents of these tumors are various, sometimes watery, at others suety, or like thick paste; which, if care be not taken to digest out properly with the cyst, will frequently collect again: was it not for the disfigurement, the shortest method would be to extirpate them with a knife, which, if artfully executed, and the skin properly preserved, would leave very little deformity. When these tumors proceed from an indisposition of the blood they are best let alone, especially those of the watery kind, which will often wear off insensibly without any applications; but, when they are likely to prove tedious, endeavour to disperse them by bathing with repellers, and have recourse to rowels, purges, and diuretic medicines, to carry off the superfluous juices, and correct the blood. And experience and observation, which were said to be *αριστη διδασκαλια*, the best master, has taught that most attempts towards a removal of this deformity are of no avail, and little or no expense ought to be incurred in fruitless efforts to cure it.

3. *Saddle or harness galls, warbles, navel galls, &c.* These may be considered as bruises, and when it can be done should be poulticed, until the swelling has been dispersed or has suppurated. If the matter has not sufficient vent, the opening may be enlarged, or the sinus laid open if there is any. It must then be dressed with digestive ointment, and, when it has been reduced to the state of a clear open sore, the cure may be finished by the astringent paste.

4. *Bruises by violent or continued pressure.* These injuries may happen in various ways, by kicks, by bites, in leaping over hedges or gates, by kicking against stalls, and many other ways. Various names have been applied to such injuries, according to the manner in which they are inflicted; but there is no occasion for such distinctions; they are all bruises or contused wounds, and require to be poulticed or fomented; the horse should immediately be bled freely, and his bowels opened by a dose of physic. The diet also should be attended to, allowing only a very moderate quantity at first of grass, or bran mash. In all these cases poultices are by far the best remedy, until the inflammation is completely subdued; and when the situation of the part will not admit of a poultice, which is seldom the case, then fomentations of warm water only, almost constantly applied, are the best substitute. When inflammation has quite ceased, which may be known by an abatement of the pain and swelling, and by the appearance of white matter, the poultice may be discontinued, and then the wound should be carefully dressed to the bottom with a tent of tow, dipped in melted digestive ointment. The cavity is not to be filled with the tent, but it must be intro-

duced to the bottom, and then the wound will heal as it ought; whereas, if it be dressed superficially, or only syringed, it will often close over at the surface and the wound appear healed, while the matter is spreading and doing mischief at the bottom. There are four obstacles to the complete healing of wounds which sometimes occur, and these are, when the wound has been complicated with an injury of a bone, a ligament, a cartilage, or a tendon. In any of these cases the fleshy parts and skin will generally heal readily, and the wound will appear nearly or quite healed, except a small or minute orifice from which a little matter oozes; and this orifice is not perceptible, being covered with spongy flesh, until a probe is introduced; it will then be found that there is a sinus running down to the bottom of the original wound, and there the probe will be resisted by the diseased bone, ligament, cartilage, or tendon. The bone may be easily distinguished by the sensation conveyed to the hand through the probe; and when this is felt a free opening should be made if the situation of the wound will admit of it, and the diseased surface scraped off. A tent of Friar's balsam should then be introduced, and continued until it is cured. If the first scraping has not been freely performed, a second may be necessary. Sometimes sinuses, or pipes as they are termed, remain after the inflammation of wounds has subsided. If these are superficial, running under the surface, or nearly horizontally, they require to be laid open, and then they heal readily. Sometimes they run obliquely inward, or perpendicularly, and then require to be dressed at first with stimulating or even caustic tents, of solution of blue vitriol; and these must be repeated until the sides of the sinus have sloughed off, and the very bottom of the wound can be distinctly felt. In all complicated ulcers of this kind, where the sinus runs in a winding or crooked direction, or where there are two or more sinuses, the caustic tents must be repeated until they are brought to the state of one simple sore, the bottom of which can be distinctly felt; and, if the bottom happen to be bone, it must be scraped freely and dressed with Friar's balsam. A good method of destroying such sinuses is to take some corrosive sublimate, or finely pulverised blue vitriol, and fold it up in a long narrow slip of thin whity-brown paper; this being neatly folded may be twisted at each end and may thus be conveniently introduced into the sinuses, and forced to the very bottom with a strong probe. Several small parcels of this kind may be made and forced in one after another, until all the sinuses are completely filled. By these means a large core or slough will be brought out in four or five days; and if the sinuses are not then so destroyed that the bottom can be ascertained, the same dressing must be repeated.

5. *Acute rheumatism.* Acute general rheumatism, or rheumatic fever, is inflammation of the muscular system, and has been already noticed under the head Founder, or Chill. There is, however, a different kind of rheumatic affection I have sometimes met with, in which the joints are affected; generally, I believe, the hock



joint; but probably the other joints are equally liable to this affection. It is sometimes accompanied with a morbidly irritable state of the stomach and bowels, and, if a strong or even a common purgative is given in such a case, there will be danger of its producing inflammation of these parts. The same irritable state of the stomach and bowels is sometimes observable also in chills, as they are termed, and when the hind leg is suddenly attacked with inflammation and swelling, after violent shivering and fever. In all such cases, though physic is often necessary, that is, when the bowels are in a costive state, yet it is likely to do great harm unless in a moderate dose, and guarded with cordials or opium. The following ball may be given on such occasions: it must be observed, however, that copious bleeding is the essential remedy, and must precede every other. *Purgative with opium, or cordial cathartic*.—Barbadoes aloes four to five drachms, ginger one drachm, hard soap three drachms; syrup enough to form the ball. The affected parts may be fomented and rubbed with some stimulating liniment or embrocation.

6. *Rheumatic affection in the hock-joint, accompanied by an irritable state of the stomach.* In this, and every other case in which the constitution is any way affected, the affection ought first to be removed by an attention to the general health of the animal, and we may fairly expect that, as soon as the constitutional debility is healed, the local disease will disappear; and we take this opportunity strenuously to recommend the observation now made to such of our readers as may have the care of this noble creature confided to their charge; for the primary procedure of first considering whether the topical malady was not occasioned by the disordered functions of the system, has been many years established with respect to the human constitution, and has been one essential means of securing to surgery its modern name.

7. *Chest founder, or flying lameness.* Some modern practitioners have disputed the existence of this disease, and the ancients attributed the lameness arising from it to some disorder in the foot; there is, however, little doubt but it is rheumatism. There is an affection of the muscles of respiration, some of which support the body, and advance the fore legs. There is also an affection of the diaphragm; from which, as well as the increase of the disease, after considerable exercise, with every appearance of the lungs partaking of the attack, obtained for it the name of bastard peripneumony. In this disorder the muscles of the shoulder and chest are of a diminished size, with a contracted motion of the fore legs, and weakness of all the supporting muscles. The feet will almost always be found affected in horses laboring under chest-founder, from their partaking in the rheumatic affection; but often disease of the foot is mistaken for chest-founder: however, examining the foot will often decide, and if no apparent cause of lameness appears then, and yet the horse suddenly becomes stiff and lame after heats, swimming, &c., we may conclude it is rheumatism. All that is necessary to say on it, is, that horses so affected are fit only for very moderate work in harness; for the mus-

cles of respiration, and of the shoulder, are so affected as to render them quite unsafe for the saddle. It is to be regretted that such horses are frequently used in stage-coaches and post-chaises, and urged to exertions far beyond their powers. Horses laboring under this disorder have generally been possessed of great spirit and power, and will, if fed high, and urged by the whip, appear to go on with spirit for a short time, but after standing they suffer great pain, and terminate their short career by a miserable death. The animal should not be exposed to cold, and should be covered with a rug in the stable. He should be kept regular by aloetic and antimonial balls, and often have a warm mash, with nitre. Perhaps the mustard seed might be given with advantage; and blister on the chest, which we think better than rowels.

8. *Acute founder, or chill.* This disorder is brought on by excessive exertion, and a consequent exhaustion of nervous power, and not merely by a chill or suddenly cooling the animal, as it is supposed to be. This excessive exertion of the muscular system brings on a peculiar state of inflammation in the whole body; so that not only the muscles of the loins and hind parts, but every other muscle, and even the heart and capillary arteries, participate in the affection. The kidneys often partake of the affection, the horse voiding high-colored urine, sometimes mixed with blood: this happens only in bad cases, and then the kidneys are often inflamed; and the pulse is quick, and accelerated by the slightest exercise. The inner surface of the eye-lids are always very red. The horse should be immediately bled until he becomes faint; the bowels should be emptied with clysters, and the stable should be made as cool as possible.

#### Genus IV.—INTEGUMENTS.

Species 1. *Surfeit.* This word, derived from *super* over and above or excess, and *fio* to be made, applies to the notion which was entertained that the malady arose out of a superabundance of humors produced by over feeding. There are different causes which produce surfeits, but they mostly arise from bad food. When the coat of a horse is of a dirty color, and stares, he is said to labor under a surfeit. The skin is covered with scurf and scabs; these return, although rubbed off. Sometimes the surfeit appears on the skin of the horse in small lumps, like peas or beans; this is often occasioned by his drinking much cold water when unusually heated. This kind of surfeit will be cured effectually by a gentle purge and bleeding. In some cases the scabs appear covering the whole of the body and limbs; at times moist, and at others dry. The irritation is generally so great, as to cause the horse to chafe himself, producing rawness in many parts, and degenerating into mange. In the first instance, it will be requisite to give him a dose or two of mercurial physic. Should his condition be good, and able to bear it, he may subsequently take the following balls, which will produce a gentle purging and perspiration on the skin, and lead to beneficial results:—

Take crocus of antimony, flour of sulphur  
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nitre, Venice soap, Barbadoes aloes, of each in fine powder, four ounces; precipitated sulphur of antimony one ounce. Let them be mixed, add a sufficient quantity of honey or treacle, and liquorice powder, and make them into a mass fit for balls. The weight of each ball should be one ounce and a half.

2. *Hide-bound.* When a horse's hide or skin sticks to his ribs, as it were, and cannot be drawn out or moved, as in the healthy state, he is said to be hide-bound. It indicates great weakness and poverty, and sometimes a diseased state of the mesenteric vessels, and consumption. It is generally occasioned by ill usage, and bad or insufficient food, and can only be removed by proper feeding and good treatment. A good piece of grass is the best remedy, especially in the early part of summer.

3. *Mange.* This is a well known disease, highly contagious. It however as frequently arises from debility as from contagion. The horse first begins to rub and scratch; the hair, then, at various parts, falls off, leaving bare patches; and, if the disease be suffered to continue, the animal pines away amazingly. The cure of mange is simple: common sulphur ointment rubbed well in, all over the animal, once a day, will cure it in a week. The following remedies are also effectual:—

*Lotion.*—Take of tobacco and white hellebore, three ounces; and boil in two quarts of water to three pints; then add an equal portion of lime water. Wash the horse all over with this every day.

*Ointment.*—Arsenic one drachm, sulphur eight ounces, lard a pound, train oil sufficient to improve its consistence. In curing the mange, the horse should have a purging ball first, and then in a day or two a dose of nitre and cream of tartar. His food should be green if it can be obtained, or, if not, turnips, carrots, or speared corn.

4. *Mallenders.* This is a scurfy eruption at the back part of the knee, or bending of the joint. The affection, if allowed to remain, degenerates into a disagreeable discharge. By washing the parts with soap and water, and drying them with a soft cloth or sponge, and then anointing with the following ointment once a day, the disease will be removed:—Take of mercurial ointment an ounce, sulphate of zinc a scruple. Mix.

5. *Sallenders.* This is the same disease as mallenders, only that it affects the inside of the hock joint. Its treatment is precisely the same.

6. *Cracks in the heels.* These are frequently occurring, especially in saddle horses, even when properly treated, except in one particular, and that an important one, for it is occasioned entirely by the foolish practice of trimming out the heels. This renders them liable to injuries in travelling on gravelly or muddy roads, or indeed in any kind of road, as loose stones cannot be avoided. In this way small bruises take place in the bend of the pastern, the skin is inflamed, and an ulcer or crack follows. These cracks are very painful, and often cause lameness: from improper treatment they often prove

very obstinate. An emollient poultice should be first applied, and continued for a few days, or until the inflammation has completely subsided. The crack or ulcer, as well as all the hollow part of the pastern or heel, should be covered with the following paste, which is to remain two or three days, and then to be washed off and repeated. When the crack is perfectly healed or dried up by this astringent paste, a little sallad oil or fresh hog's lard is often necessary to supple the part. In obstinate cases it is necessary to keep the horse perfectly at rest until the crack is healed, and sometimes to apply the following ointment, spread on a pledget of tow, and confined by a bandage:—Take of litharge plaster two ounces, best sallad oil one ounce. Melt slowly; and when removed from the fire, continue stirring until it is cold. Three of these dressings will generally cure the disorder. During this treatment the horse must not be taken out for exercise, but be turned loose into a cool box or out-house, where he may move himself about gently. As he takes no exercise during this time, he should be fed with bran mashes, and have only very little hay, as his bowels would otherwise be loaded with excrement, and much mischief might thereby be done. Though the disease is entirely local, it may not be amiss to give half an ounce of nitre once or twice a day in his mash. Horses that are constantly kept trimmed out in the heels often lose the hair from the part by the constant friction of the dirt of the roads; and, besides the deformity this occasions, they are still more liable to those painful cracks. I have lately, Mr. White observes, found the following treatment successful:—If the cracks are very painful, poultice for one day and night, then wash them three times a day with the following lotion, for one or two days, after this apply the astringent ointment, which generally heals them in a short time. *Lotion.*—Supercetate of lead and sulphate of zinc, of each two drachms, water eight ounces. Mix.

7. *Crown scab,* of the same nature as the mallender, and may be cured by the same means: it generally leaves a blemish consisting in the loss of hair.

8. *Rat-tails,* an affection of the same kind essentially as the preceding, but under a different formality, the eruption appearing in lines or wheals, which from their shape have received the fanciful denomination of rat-tails.

9. *Treads.* Waggon horses, especially in mangy stables, have often an itching about the heels, which causes them to injure themselves, sometimes severely, in endeavouring to rub or scratch the part with their own feet. It is thus that they tread on the coronet or heel, and sometimes cause quittor. The injury, however, is seldom so severe as this, and may be soon cured by poulticing for a few days, and dressing the part afterwards with the tar ointment. It is always better to lay up the horse, and poultice him, than to put him immediately to work, as is commonly done, because the disease appears trifling: they are almost always obliged to do it at last, and then a much longer time is required for the cure. Treads have been noticed



in this place because crown scab and rat tails are a mangy kind of complaint, and often occasion the accident. Horses that have this itching of the heels and legs, if carefully examined, will sometimes be found to have lice in the skin. The legs should be well rubbed with mange ointment, and some sulphur or alterative powder may be given them inwardly.

10. *Grease*, so termed from the similitude which the discharge bears to that animal secretion called by the same name. This very frequent disease is a discharge from the skin of the part immediately above the hoof, sometimes attended with cracks and swellings extending higher up. It is caused by weakness of the parts, occasioned by long standing in a stable, or by cold from repeated washing of the legs without rubbing them dry, or from moisture constantly under the feet. Grease may be sometimes owing to constitutional debility, particularly in young horses, brought on suddenly by changes in their diet, &c., and the want of exercise. The hind legs are oftener attacked than the fore; perhaps, because they are usually not so well rubbed and dried; and, perhaps, from the stretch which is kept upon them in stalls which slant downwards. Although a horse may be fat, and apparently in good condition, still the disease may be caused by this very fullness, producing a partial debility in the feet. Grease may be either a simple discharge, or be connected with cracks and swelled legs. The treatment, therefore, must be adapted to the different degrees of the complaint. In the first instance, when the complaint is mild, the feet should be bathed in warm water, and, having been dried, the following astringent lotion should be applied, by tying a rag wetted with it on the parts, and repeating the application twice a day, with gentle exercise, and green food if possible, mashies, opening medicines, and nitre:—Take of sulphate of zinc two drachms, decoction of oak bark a pint. Mix. If cracks begin to show themselves, with an ichorous discharge of a thin and greenish nature, we must not use the above lotion, but first poultice the parts with warm linseed poultice or mashed turnips, bathing the parts occasionally with warm water. These applications are to be continued for eight or ten days, until a healthy discharge comes on, when the above astringent may be safely applied.

If, however, the cracks become large, and swelling of the legs follow, the above poulticing and fomenting plan must be mainly assisted by constitutional means, such as occasional diuretic balls and alterative medicines; and the following may be used after the astringent lotion is tried:—Take of verdigrise half an ounce, prepared calamine stone one ounce, chalk powdered two drachms, tar a quarter of a pound. Mix. Anoint the parts daily with this. Confirmed grease, notwithstanding all our efforts, will often follow; and this is when the cracks become ulcers and discharge a foul and peculiarly stinking fluid; horny or thick nobs will also form, called by the farriers grapes. Then we must, in addition to warm fomentations, use the fermenting poultice, which is flour moistened and leavened into a state of fermentation by yeast.

This will be found to correct the discharge in a few days. The discharge, however, ought not to be too suddenly dried up when the complaint has gone to such lengths, but rowels or setons should be applied in the thighs, and allowed to discharge several days first. Then the following astringents may be applied to dry up the discharge:—Take equal parts of verdigrise, white vitriol, alum, and sugar of lead, half an ounce. Dissolve them in half a pint of water, or of oil of vitriol half an ounce, water half a pint. Mix. Or of corrosive sublimate two drachms, dissolved in a little spirit of wine, and added to half a pint of water. When the discharge is stopped, and the disease apparently removed, let the horse be turned to grass, or into a straw-yard; and, in a week or two, fire the parts, so as to cause the skin to contract, and so establish a permanent pressure on the parts.

11. *Broken knees*. These like the preceding are contused wounds, but generally of a more serious nature, not only on account of the blemish, but likewise from the violence with which they are inflicted. Whenever there is a flap of skin it should be immediately cut off. A poultice is the best remedy for the first three or four days, or a week, and, when the inflammation has been thus subdued, the white astringent paste should be applied as prescribed at the end of this article. When the wound is completely skinned over, a little hoof or tar ointment may be applied daily to promote the growth of hair; the ointment may be softened, if thought necessary, by a little oil of olives, or colored red or black by means of bole or lamp black.

12. *Sand crack*. This complaint is most general among horses whose hoofs are of a dry and fragile substance, on which account the horn at the upper part of the inner quarter is liable to break and crack. These sand cracks in most cases affect the sensible portions of the foot. The crack or cleft should, in the first instance, be opened with a drawing knife, and all the hollow portions of the horn, as far as they extend under the crust, should be thoroughly cut out; also every portion of horn detached from the sensible parts must be cut off. Some tow steeped in a solution of blue vitriol should then be applied, and the hollow parts afterwards with tar ointment. When the foot appears lame and inflamed, it must be poulticed for about seven or eight days; after this it would be well to send the animal to grass for a month, when a small portion of new hoof will be seen growing above the sand crack. The whole of the crack should be laid over with tar ointment, and the part where the crack appears should be reduced as much as possible by the use of the rasp. By attention to these instructions, sand cracks are not unfrequently cured, without much trouble. When the animal is taken out from grass, the soles must be pared thin, the foot stuffed with tar ointment, and a wide easy shoe put on. In some time after, when the horse improves, a smaller shoe can be substituted in its stead. If the feet be unusually hot, apply wet cloths constantly to them until the heat be removed. The frog should be kept well pared or rasped, and overlaid with tar ointment, which should also

be applied to the coronet and the heels of the frog, if dry or cracked. In very bad cases of sand crack, the cautery, or burning iron, is sometimes used successfully; a blister on the coronet above the sand crack has also produced beneficial results.

13. *Gravelling.* This complaint is caused by the introduction of gravel or dirt at the heel, between the crust and sole, whereby suppuration ensues either above or beneath the sole, and not unfrequently breaks out on the coronet. The heel must be pared away, and every portion of horn detached from the sensible parts must be cut off. The dirt or gravel must be completely removed by the application of tents of tow dipped in warm water. Should the parts appear inflamed, poultices must be laid on. When the inflammation ceases, tents of tow or lint, steeped in a solution of blue vitriol, should be introduced, and afterwards the cure may be completed by Friar's balsam and tar ointment. Until the sole and heel are firmly joined together, a bar-shoe must be kept on the injured foot.

14. *Corns.* In nine cases out of ten, this afflicting and frequently dangerous complaint is solely attributable to the gross neglect or ignorance of the smith in shoeing horses carelessly or improperly. All sporting gentlemen and dealers in horses should, therefore, be particular as to the capacity of the farrier before they submit their horses for his shoeing operation. Corns are produced from the heel of the shoe, either by pressing immediately on the sole, which may be too slight to bear it, or by pressing the heel of the case or crust (as it is termed) internally. The sensible sole and thin coats become bruised, and the blood passes into the pores of the horn, which may be perceptible (when the shoe is taken off and the sole is scraped) from its livid appearance. This bruised portion, as well as that around it, cannot possibly bear the impression of a shoe from the soreness and inflammation attending the wound; therefore, a sufficient quantity of the sole, crust, and bar must be pared off, so that, when the bar-shoe is put on, it shall be at least three-quarters of an inch separate from the surface. The shoe should be taken off occasionally, and the parts pared off, according as their growth increases. In most cases of this kind, it will be necessary to reduce the hard substance on the heel by well rasping it, otherwise the frog is perpetually exposed to the severe pressure of the bar-shoe. If the feet feel unnaturally hot, wet cloths or poultices should be applied constantly, until the heat is removed. Some ignorant horse-doctors cut out the corn only, so that the bar and crust are left to form a juncture with the heel of the shoe; but even if the shoe were made so as to bear off the quarter it would avail little, for, in the course of exercise, the horse's weight must press upon the shoe, and consequently injure the affected part. Inattention to a proper mode of treatment, in the first instance, is the cause of so many fine animals being left upon three legs during the whole period of their lives. The only remedy, in this extreme stage of corns, is the application of emollient poultices, and a complete excision

of the diseased horn. When all inflammatory symptoms have subsided, the sensible portions should be dressed with a solution of caustic or blue vitriol, and finish with the tar ointment. However, this may be considered the only effectual remedy in desperate stages of the complaint, a little timely care on its first appearance would prevent the fatal results which must inevitably ensue to the animal when it is long neglected. In those advanced stages of the disorder, notwithstanding the remedies proposed, the sensible portions of the foot will ever be in a tender state; therefore, the protection of the bar-shoe, as already directed, is absolutely necessary, and should be constantly used. The animal will find great relief in being allowed to expatiate in meadow without shoes, provided the tender heel be first pared down as has been already inculcated.

15. *Bruises of the sole.* The sole may be bruised either from its being naturally flat and thin, or from being made so by the smith, and this he does from a desire of doing what he believes to be right; that is, to make the bottom of the foot concave when there is not sufficient horn to admit of its being made so, without making it so thin as to be incapable of resisting the blows to which it must of necessity be exposed. It may also happen from a careless use of the drawing knife, that is, by cutting away too much at once; in doing which they sometimes wound the sole, or leave a small part so thinly covered that not only the sensible sole, but even the coffin bone, become bruised, which cannot fail to happen when a foot has been thus pared. When this happens matter will form under the horny sole, and when this has been let out, and all the hollow horn removed, the horse will appear relieved; but sometimes the pain will continue, from there being matter deeper than this; that is, between the sensible sole and the coffin bone; this being let out, and all the surrounding horn thinned away, the foot should be wrapped up in a bran poultice. The following day the poultice will perhaps be unnecessary, and it may then be found that a small part of the coffin bone is bare, which may be distinctly felt when it is probed. This bare part of the bone should be scraped with a suitable instrument, and afterwards dressed with the tincture of myrrh: this will in the course of a short time effect a cure. Before the horse is put to work the sole should be hardened; and this may be done by keeping it stopped with tar ointment. Tar ointment, tar and hog's lard equal parts; to be melted together, and when removed from the fire to be kept stirring until it is cold.

16. *Over-reaching, over-lashing, or over-stepping.* These in old books of farriery were termed according to their situation in the heel, or above the fetlock joint, the higher and the nether attain; from the French attain. These accidents sometimes happen from the toe of the hind foot being too long, and not squared off as I have advised. It may also occur from bad riding, in pulling up a horse badly, and making him gallop false, as it is termed. Whenever the wound is such as to leave a flap of skin, whe-



ther it be upwards, downwards, or sideways, it should be immediately cut off as close as possible; a re-union of the parts can never happen, and by leaving the flap, and attempting to effect the re-union of the parts, there would be thickening and a greater blemish, and its removal would be found necessary at last. This may be considered as a contused wound, and to all such wounds I think a poultice the best remedy. This probably will be doubted by surgeons; but in horse surgery it will be found the best practice. When the inflammation has been completely subdued, by this poultice, the astringent paste may be applied, and nothing more done for two days, when it is to be soaked and washed off, and a similar dressing laid on. Three or four of these dressings will generally effect a cure. Astringent paste, finely powdered alum and pipe-clay, in equal proportions; water enough to give it the consistence of cream. When the wound is perfectly healed, a little salad oil or hog's lard may be necessary to soften the cicatrix.

17. *Thrush*. In this disease the frog is ulcerated, causing a discharge of foetid matter from the cleft or division. It is not always productive of lameness, particularly where the hind feet are affected, which is always the result of negligence, in allowing the horse to stand in his dung. The horny frog becomes soft and rotten, and the acrid matter penetrating through it inflames the sensible frog, and, instead of horn being secreted for its defence, a foetid and acrimonious matter is discharged. Contraction in the heels will sometimes produce thrushes in the fore feet, but it is more generally the consequence of want of elasticity and increased thickness of the hoof. The treatment of thrush must depend on the cause by which it is produced. That in the hind feet will be cured by proper washing and removing the filth, which occasions it; when however it has gone so far as to produce ulceration of the sensible frog, it must then be dressed with a solution of blue vitriol or oxymel of verdigrise, after cleansing the frog thoroughly with tow. One dressing will be sufficient to effect a cure. The tar ointment ordered in narrow heels should be applied hot, to promote the regeneration of horn. Thrush in the fore feet must be treated differently. The cause must be first removed, which is an increased quantity of blood thrown into the frog, from the compression which the sensible foot undergoes from the contraction of the heels. In this case, the animal suffers pain from his ineffectual efforts to expand the inelastic and inflexible heel; this causes him to lift the frog, and go chiefly on the toe. Thus it is that stumbling and falling are so common in this disease. By attempting to stop this kind of thrush with those preparations commonly used, the lameness is often increased. All that is necessary here is to rasp the quarters and heels of the hoof, attenuate the soles, and cover the frog with tar ointment; the foot should then be wrapped in an emollient poultice. Slight cases will be effectually relieved by this treatment. Should however the thrush remain, after these applications, apply the following mixture:—Take tar

four ounces, white vitriol half an ounce, alum in powder two ounces; mix them, and add gradually sulphuric acid three drachms. It is necessary to describe a third kind of thrush, which is, in point of fact, nothing less than the commencement of canker; it is not so common as those already treated on. This species of thrush may be always removed by carefully cutting away from the frog all the horn that is detached from the sensible frog, and afterwards applying Egyptiacum with a few drops of oil of vitriol. The part affected should be kept clean with a sponge and warm water; and, when the ulcers are healed, the regeneration of horn must be assisted by applying the hoof ointment used in narrow heels.

18. *Canker*. This obstinate and often incurable disease first makes its appearance in the frog, spreading thence to the surrounding parts, and at times affecting the coffin bone. In the first place it is necessary to pare the foot down, carefully removing every particle of horn which may conceal any part affected. This must be repeated each time the foot is examined, which should be daily. All the putrified flesh must be removed with the knife, taking care not to go deeper than the decayed part, otherwise the coffin bone will be in danger of injury. When this is properly done, let the shoe be fixed with two or three nails only on each side; and, if it is necessary to stop the bleeding, lay over the incised part a handful of salt, and secure it with pledgets of tow. This application must be removed the following day, and the hoof examined, to ascertain whether or not it presses upon any tender part; if so, pare it thin, or, if thought necessary, remove it. Take corrosive sublimate two scruples, muriatic acid two drachms, Friar's balsam, compound tincture of myrrh, of each two ounces. Mix them, and put into a bottle. Let this tincture be applied over the whole of the diseased part, after which, take pledgets of tow and dip in the following mixture, applying them all over the affected parts:—Take white vitriol, blue vitriol in powder, of each two drachms, alum in powder half an ounce, Egyptiacum four ounces, sulphuric acid twenty drops. Mix well. Spread pledgets of tow with this mixture, as before stated, and fill up the vacancy over them with other pledgets spread with the tar mixture ordered in thrush: this is the best method of effecting a cure. The foot must be dressed every day, and should any fungus make its appearance, it will be easily removed by touching it with lunar caustic, or sprinkling over it a little powdered verdigrise. The cure is rendered more difficult in these cases where the horse loses his hoof, which sometimes occurs, and always occasions great inconvenience in dressing. If the hoof is in such a state as to prevent the shoe being fastened to it, the dressings must be secured by a boot made for the purpose. The quantity of cloths or rags which are generally applied often produce such heat in the foot as to increase the injury, every precaution must therefore be taken to prevent the hoof separating from the foot, and the following astringent lotion should be applied once or twice a day:—Take sugar of lead, white vitriol, of each



half an ounce, alum five drachms, vinegar nine ounces, water four ounces. Mix, and put into a bottle. This lotion must be applied to the foot and instep as high as the fetlock joint, previous to its being dressed, and some of it may be poured round the fetlock joint, or at the edge of the cloths so as to be allowed to find its way down at any other part of the day. By pursuing this plan the hoof will often be preserved from entire separation. It is necessary to give two or three of the following balls:—Take calomel one drachm, ginger two drachms, red nitrate of quicksilver finely powdered one scruple, castile soap two drachms, add a sufficient quantity of syrup to make a ball. One of these balls should be given every third night, and worked off the following morning with a common purging ball; by this treatment the blood will be cooled and improved, and the disease checked. In about three weeks after he has taken the last ball, it will be necessary to give him two or three mild alterative balls every second night. By pursuing this plan of treatment with attention, a cure may be effected in the most serious cases.

19. *Pomiced feet* are the consequence of inflammation. It is a thickening internally, which displaces the coffin bone so as to make it bear on the sole. A pomiced foot is flat or convex on the sole, and fallen in on the front of the hoof. We can only palliate the disease.

20. *Groggy feet*, indebted for this very fanciful denomination to the ruling motion, which weakness of the joint imparts to the segments of the limb below. This is a diseased softening of the joint and ligaments. Blistering and entire rest only are useful here.

21. *Sitfasts*. These appear like dark colored scabs on the back, but are really dead hard skin, and cannot be removed until they have been poulticed a few days. Then they may be separated by means of a pair of pliers; but it requires some force to remove them, and generally a few strokes with the knife. When this has been done the cure may be completed with the astringent paste, applied once in two days, and the scab removed previously to each application. A little sallad oil may be necessary to soften the cicatrix after the wound is healed.

#### Genus V.—ABSORBENT SYSTEM.

Species 1. *Farcy*, or *Farcin*, terminates, if not prevented by treatment, and may be either constitutional or local. This disease is, contrary to the opinion of some, extremely contagious; and when caught in this way is generally communicated to the horse by the rubbing of some parts of his body against the manger where a glandered horse has stood, or, perhaps, being touched with a currycomb that had glandereous matter upon it, or from the diseased horse biting or scratching another or himself; in short, by any means that brings the matter of a glandered horse in contact with a sound one. It is well known that a single drop of that poisonous matter is sufficient to produce both farcy and glanders: however, farcy is much more frequently caused by bad living and hard work than by contagion: and, if it proceed in its course, it terminates by glanders and death.

Farcy has been, by the old farriers, thought to be a disease of the veins; but it is now fully proved to be a disease of the absorbent or lymphatic vessels; and farcy buds, as they are called, are the enlarged glands of that system in which the virus is acting, and are what, in the human system, are called buboes: like them, they are difficult to heal when once ulcerated. The ulceration of these farcy buds are termed farcy pipes, in the language of farriery. There are two kinds of farcy, one which commences in the surface of the body, and is termed the button, or bred farcy; the other commences in the hind legs, and sometimes in the fore. The swellings called farcy buds are not so apt to be found near or over the joints, but between them, and they may be distinguished from those tumors called surfeit, by not being so diffused, or so broad and flat, and by not being on the outside of the limb, or on the body, where surfeit tumors appear most commonly. Farcy buds are knotty, and when on the legs are to be found inside. Farcied limbs become swelled; but they differ from the swelling of mere debility in this, namely, that exercise and rubbing will remove the latter, but in farcy it cannot be removed, and there are knotty tumors to be felt, and an evident enlargement of what might be thought the veins, but what, in reality, are the absorbent vessels. The tumors of farcy, if allowed to go on, break and degenerate into foul ulcers, the matter of which is contagious. Bad cases of grease will become farcy, if neglected. Lameness sometimes attacks one leg, and then suddenly changes to the other. For the cure of this disease diluted sulphuric acid, as recommended by Mr. Rydge, who also recommends Mr. Blane's prescription. Six ounces of the expressed juice of goose-grass, six ounces of the decoction of hemp seed, and six ounces of the essence of spruce.

2. *Glanders*. The transition is ready from a highly inflamed state to ulcerating condition, whence we can account for the mutation of the farcy into glanders. The general symptoms of glanders are, a discharge, mostly from the left nostril, seldom from the right, and sometimes from both. This running, at first, is inconsiderable, and in substance resembles the white of an egg. The membrane within the nostril is unusually red; the swelling of the glands or kernels under the jaw, and between the parts of the lower jaw, is almost invariably observable on the same side as the infected nostril. In other respects, the animal exhibits every appearance of soundness, as regard its appetite, condition, spirits, &c. The urine is generally crude and transparent. Glanders are not unfrequently accompanied by a cutaneous disease, of a scorbutic character, called farcin or farcy. Glanders may be divided into two stages; namely, the acute, or rapid violent stage, and the chronic, or slow mild stage. The acute glanders are frequently accompanied by acute farcy; in that case, large painful tumors in various parts, ulcers about the face, neck, or lips appear; also inflammation and ulceration of the fore or hind legs, testicles, and sheath. In short, when the disease has arrived at this frightful



stage, all hopes of cure are gone, and it would be an act of humanity to destroy the suffering animal at once, and rid him of his torture. It would also be the wisest plan, in order to prevent farther contagion among other horses. Chronic glanders are of an opposite character, and, in the early stages, so mild in their progress, that the health, condition, or appetite of the horse is not at all affected. If the animal be well kept, and moderately worked, he may continue a useful servant to his owner many years. The symptoms of chronic glanders, in their advanced stages, are ulcers inside the nostrils, which if too high up to be visible, may be known to exist from the suppurated running that drops from the nose; sometimes it exudes in such quantities, and is of so sticky and thick a substance, that it adheres to the orifice of the nostrils and upper lip, so as frequently to impede free nasal respiration, and cause the animal to snuffle and snore. Sometimes the matter has a sanguineous appearance, and if the animal be over-worked, in this advanced stage of the disorder, he will often bleed profusely from the nose. If in the mild or early stage of chronic glanders blood flow from the nose, or the matter have a foul smell, it is a sure signal of the second stage coming on; consequently, the running flows more copiously, and becomes more offensive; the glands under the jaw increase in size and hardness, and adhere close to the jaw bone. Matter appears also in the inner corners of the eyes. The horse falls off in condition, has a constant inclination to stool, coughs violently, and in a short time death closes the sufferings of the poor animal.

3. *Lampas*. La Fosse was the first person who pointed out the absurdity of cauterising this swelling, since it accompanies the cutting of the grinding teeth, and merely points out to us that something ought to be done to humor a stomach rendered delicate by sympathising with the mouth.

4. *Bags or washes*.

#### Genus VI.—CONGLOMERATE GLANDS.

Species 1. *Strangles* is a disease affecting the kernels and other glands of the neck. General fever, swelling of glands, under and within the lower jaw, cough, drought, and loss of appetite; sometimes there is very little general fever, and the glands swell, suppurate, and burst, without much notice; generally, however, the disease is mistaken for the distemper. It is distinguished from this by the swellings, which are hot, more tender, and larger, than in the distemper. A similar case, in each treatment, is proper; but it is advantageous to bring the swellings to a head in strangles as soon as possible; for this purpose use strong, hot, stimulating poultices. In the distemper, we must use a liniment of hartshorn, vinegar, and oil: if we are in doubt, therefore, we must use only warm fomentations; this removes tightness and irritability, without occasioning suppuration. Sometimes, in strangles, there is a discharge from the nose, before the kernels come to a head—this is called the bastard strangles. When the fever is considerable, we must not bleed, unless upon a great emergency;

that is, when the pulse is hard and quick, the flanks heave, the legs cold, the cough painful, and the nostrils red; if the throat be sore, stimulate it, but do not blister; apply constantly a nose-bag, with a warm mash in it, frequently changed; rub the swellings with an ointment, made of equal parts of suet and turpentine; do this twice a day, and keep on a warm poultice; if necessary, shave the hair off the kernels. When the swellings burst internally, nature must effect the cure; the horse must have light food, and mild exercise. When there is a proper point to the abscess, open it with a lancet, and press out the matter gently; then keep the wound open with a piece of lint, covered with lard, and continue the poultice for a day or two.

2. *Vives*. The parotid or great salivary gland, situated close under the ear, becomes inflamed and swollen, and, if the vein should have received glanderous poison, the inflammation may reach the heart, when the rapid destruction of the horse must be the consequence. If the excretory passage or duct of the parotid gland be only affected, there is no danger; it is merely necessary to let the matter flow off from the orifice, and not prevent its current; the secreting powers of the gland, and the gland itself, will be at last annihilated without any injurious effects to the animal.

#### Genus VII.—SANGUIFEROUS SYSTEM.

*Blood spavin*. This disease consists in an enlargement of the saphena vein, which passes over the bog spavin, and often accompanies that disease. The remedy employed by farriers is to make an incision in the skin, and pass some thread, by means of a crooked needle, under the vein below the dilated part. In one case, after the vein had been securely tied, and the wound in the skin stitched up, the horse was turned to grass; sometimes with a strengthening plaster or charge placed all over the joint.

#### Genus VIII.—INTERNAL MEMBRANES.

*Hernia*. When we can push back the gut it is called reducible hernia; but, when we cannot, it is called irreducible; and, if the gut becomes obstructed, it is called strangulated. It is only in the last that we can be of any real use; and that is, to prevent immediate death, by reducing the gut into the abdomen; for nothing can remove the common affection of reducible hernia but pressure, and this cannot be permanently applied with horses. Our services can only be required in strangulated hernia. To reduce this, the horse must be thrown down with hobbles and secured; the legs are then to be placed so as to relax the muscles of the belly, and then the arrigently introduced into the anus, when, by cautious pressure, the gut may be brought back into the abdomen; however, this will not happen often, and if it do not on the first trial, recourse must be had to a clyster of tobacco smoke and cold application to the tumor; but time must not be wasted with such remedies, and the operation must be resorted to in the following manner: an opening is to be made cautiously into the external integuments, so as not to wound the gut itself, which would be fatal. The

finger is then to be passed up the opening along the spermatic cord, and so as to feel where the stricture or tightness is; and then a blunt pointed bistoury is to be steadily passed on the finger, so as to divide the stricture, which, when done, will allow the gut to pass back immediately. When this is performed, close the wound, and apply such compress and bandage as will prevent the return of the gut.

#### Genus IX.—NERVOUS SYSTEM.

*Epilepsy.*—The symptoms of this disorder are as follows:—The horse at first stops suddenly, shakes his head, and looks frightened; he then proceeds as before. The symptoms increase in proportion to the violence of the attack, and he perhaps falls, suddenly becoming violently convulsed, during which convulsions he passes his urine and dung involuntarily. After a few minutes he recovers his senses, and appears as well as before the fit. The cure consists in purging the animal every second day gently by calomel and aloes, and then turning out to grass for a couple of months or more, bleeding him once a month.

*Spasms.* If a twitching or spasm take place, in any of the muscles, it must be treated with gentle frictions with a brush, opening the bowels, and then administering opium liberally. The best form to give this powerful, and at present only antispasmodic, in veterinary medicine is as follows:—Take infusion of bark a quart, of tincture of opium half an ounce. Mix.

*Stringhalt.* This is a spasmodic affection of the hind leg or legs well known; there is little inconvenience arising from it, and it is out of the power of the veterinary art to remove it. Mr. Blane gives the best opinion as to its immediate cause, which is, 'that some nervous twig in its passage meets with continual irritation, probably from mechanical obstruction over an exostosis or ligamentous enlargement; or from some pressure, as nipped between two tendons,' &c. &c. When the affection is in both hind legs it is not so remarkable, as the animal appears only to lift them a little higher and more suddenly than others.

*Tetanus or Locked Jaw.* This melancholy disease may originate from various causes, viz.: bungling operations in gelding, nicking, or docking, worms (called bots) in the entrails of the horse, over-working, wounds in the feet, &c. The principal antidotes at present used in the removal of this disorder by veterinarians are camphor and opium, which are injected into the stomach by clysters, if the medicine cannot be passed down by the mouth; the animal may also be supplied with nutritious clysters, until the jaws expand sufficiently to enable him to swallow his food. Wilkinson, who seems to have effected many successful cures in locked jaw, proposes the following treatment:—In the first place he recommends an emollient clyster and a purgative; unless the pulsation be very quick, he does not approve of blood-letting. The jaws and every other part spasmodically affected should be thoroughly well rubbed with liquid ammonia, mustard, olive-oil, and oil of turpentine, mixed up together. Then all the

parts so affected should be covered with fresh sheep-skins, the fleshy sides of the skin to be kept inside; they must be changed as frequently as is requisite, in order to keep the parts in continued perspiration. When the purgative has operated, a drench, composed of asafetida, camphor, and opium, about one drachm each, is given; and, at the same time, he serves the horse with a clyster of similar medicines, with the addition of a decoction of rue. Should the horse not improve, but appear costive, Mr. W. recommends the purgative and emollient clyster to be repeated, and the opiate to be discontinued, until the purgative has fully operated.

#### Order II.

#### Genus I.—SANGUIFEROUS SYSTEM.

Species 1. *Synochus*, that kind of fever which depends upon excess of blood, is generally produced by taking up a horse from grass, and putting him suddenly into a warm stable upon oats and hay; or by feeding a horse high and giving him little or no exercise. Fever thus produced is always to be cured by early and copious bleeding, that is, by bleeding until faintness is produced; for which purpose it is generally necessary to take off from one to two gallons, and sometimes more. Medicine is of no use in this disorder, unless it is caused by an acrimonious state of the blood and humors, and then it will be useful.

2. *Phrenitis*, mad staggers. The leading symptoms of this disease are, unusual drowsiness, loss of appetite, and an inflamed appearance under the eye-lids. As the disorder advances the animal becomes suddenly ferocious, endeavours to bite and destroy any other horse near, or any being who attempts to approach him. After those convulsive efforts he sometimes lies down; and, when recovered from exhaustion, rises up suddenly, and resumes his furious operations. This desperate disease originates sometimes from worms in the stomach, called bots; and, in other cases, from too much confinement in the stable, and high feeding. The horse should be immediately secured in this violent stage of the disorder; the two jugular veins should be opened, and, as in the case of inflammatory fever, the animal should be bled even to fainting; and, if convulsive symptoms should again appear, the operation must be repeated. When the animal is thus rendered quiescent, he should be served with a few emollient clysters, and one or two purgative doses. As soon as his strength is sufficiently recruited, give him occasional bran mash, and green herbage in small proportions. In some time after (if the weather be favorable) send him to grass on a light wholesome pasture. The remedies to be relied upon most are repeated bleedings and purging.

3. *Peripneumonia*, rot, or rising of the lights. Pleurisy, bronchitis, peripneumony, the rot, or rising of the lights, is of frequent occurrence, and is one of the most destructive diseases which the horse is subject to. As such, therefore, it merits our peculiar attention. The lungs are of a delicate texture, and it is necessary for the certain existence of the animal functions that the



lungs should perform their duties without being impeded by disease. When inflammation has attacked the lungs, we must immediately resort to the most prompt and efficacious remedies. Among these, bleeding certainly is the most useful; and, on some occasions, the practitioner has carried it to an extent almost incredible. The first symptoms are invariably those of fever, common to all inflammatory complaints; then are loss of appetite, cold shiverings, restlessness, depressed head, beating flanks, and difficulty of breathing. This last symptom increases in extent, in proportion to the advance of the disease, which may be known by the following symptoms:—Very quick and difficult breathing, violent working of the flanks, restlessness, expanded nostrils, for the admission of a greater quantity of air, head depressed, and inclining to the part affected, expressing pain and trouble. The horse seldom attempts to lie down during this sickness, but sometimes the animal falls suddenly and dies. His extremities are generally cold, but the body is suffering under a strong fever, attended with a dry short cough, and a discharge at the nostrils; the mouth is dry and parched, and the pulse which, at first, is generally strong and hard, but which is afterwards more oppressed, rises when you take blood. In some cases there is more difficulty in breathing than in others: this depends upon the extent of the disease; the horse finds he breathes more at ease when standing than when lying down. This difficulty of breathing arises from the lungs containing too much blood, which lessens the size of the air cells, and, beyond doubt, diminishes their number. From this cause, the horse, so often as he breathes, cannot admit so much air into his lungs as is sufficient to enable them to perform their functions: hence he breathes more frequently. The quantity of blood in the lungs is greater, and circulates slower than when in health; thereby, its free return from the head and neck is checked, and the eyes and membrane of the nose are frequently red and inflamed, while the veins of the neck project with over distension. The next thing to be done is to cool the body, act upon the kidneys, and purge the bowels. The following plan is an excellent one:—Take James's powder two drachms, prepared kali half an ounce, nitre half an ounce, Castile soap two drachms, confection of roses half an ounce; beat them into a ball. Give this ball immediately after bleeding, and, while the inflammation continues, repeat it two or three times a day. Six hours after bleeding, give him the purging drink, recommended under the head of *Fever*, which see. Let this be repeated every morning until the bowels be freely opened. You may assist the operation of the purging drink materially, by using the following clyster:—Take thin water gruel four quarts, nitre one ounce, Glauber's salts four ounces, linseed oil half a pint. Dissolve the salts in the gruel, and give it to the horse when lukewarm. Observe the general rules which I have laid down previous to the exhibition of a clyster. You may inject, as above, once a day until the medicines operate: you may also employ blistering to great advantage. The use of the following, rubbed well in, and

extensively over the chest, until it is well blistered, will be found serviceable:—Take Egyptian acacia two ounces, vinegar two ounces, hartshorn two ounces, turpentine one ounce, oil of origanum one ounce, euphorbium two drachms, Spanish flies two drachms. Put them in a bottle, and shake them well for use.

4. *Pleuritis*. Symptoms and mode of treatment precisely the same as those of the last.

5. *Catarrhus influenza*. Distemper. This disease is generally caused by sudden transitions from heat to cold, where the animal, in a state of excessive perspiration, and overcome by great exertion, is immersed in cold water, or (as is too frequently the abused practice) drenched with buckets full, by way of refreshing the horse. The general symptoms are severe cough or catarrh, excessive drowsiness, moisture from the eyes and nostrils, quick pulse and breathing, quinséy in the throat, universal debility, &c. The best remedy is immediate and free bleeding; then turn out the animal to a well enclosed and sheltered pasture, where, in due process of time, with the assistance of wholesome grass, and good air, the disease will be effectually removed. If the horse cannot conveniently be stirred from the stable, he should be fed on light bran mash, and very small portions of the very best of hay; if grass could be obtained, it would be much better. The best medicine is nitrate of potass (nitre), to be given in three doses; the first in the morning; the second at one o'clock in the afternoon, and the third at night, in the quantity of half an ounce to each dose. Clysters should also be served sufficiently frequent to keep the body in a free and cool state. The above regimen and treatment should be continued until the animal be in a state of perfect convalescence; then very small proportions of oats, well bruised and wetted, may at intervals be allowed him.

6. *Gastritis*. Stomach staggers. The stomach is sometimes, when in a diseased state, affected by acute inflammation, from receiving into it poisonous or highly stimulating substances. However, this is not a case of very frequent occurrence. Bots are supposed to produce sometimes a species of chronic inflammation in the stomach. The principal indications of acute stomachic inflammation are general heaviness, quick breathing and pulsation, legs and ears chilly, &c. If an over quantity of arsenic, blue vitriol, or corrosive sublimate, be received in the stomach, the best antidotes against their poisonous effects are liver of sulphur; a solution of soap, with an infusion of flax seed; a solution of gum arabic, or arrow-root boiled, is also recommended. If acute inflammation ensue from the action of violent stimulants, such as an excessive dose of nitrate of potass, linseed infusion is considered the best anti-stimulant. The animal should also be bled. If the stomach be inflamed by bots, doses of olive or castor oil should be given, and clysters of oil and warm water be thrown up. As the disease abates his regimen of diet should be very temperate, nutritive mashes of bran, and a small portion of bruised oats; also green herbage, as grass, &c., are the best diet.

7. *Peritonitis*. This disorder proceeds from the quick removal of a horse into a close stable,

having previously enjoyed the benefit of good grass, air, and free exercise; it may also originate from excessive high feeding, in order expeditiously to restore a horse to flesh that has been in a debilitated and emaciated state; it may likewise arise from an injudicious use of corrosive sublimate in the attempt to drive a cutaneous disorder into the bowels. This class of the disease is discoverable by the following indications: excessive lowness of spirits, unusual lassitude, slight dysenteric affection, restless in the stall, breathing and pulsation quick, appetite reduced, film of the eye inflamed and red, and, if proper remedies be not at this critical stage of the disorder immediately applied, the pulsation becomes rapid, and violent dysentery ensues, accompanied by severe costiveness, the horse stools but little at a time, and his urine is of a deep red color; at last the poor animal, overcome by cruel torture, dies distracted and exhausted. The first remedy in this case is, spontaneous bleeding, even to fainting; doses of castor oil should also be given every alternate hour, and clysters of warm water and castor should also be thrown up, until a copious discharge has freed the bowels, and removed the dysenteric action.

8. *Enteritis*. Molten grease. Inflammation of the intestinal canal proceeds sometimes from suddenly over-working a horse in very full condition, and heretofore not used to much exercise; it may also be produced by severely working a horse just taken into stables from grass. This disease is frequently called molten grease, in consequence of the slimy matter apparent in the excrement of the animal, which some veterinarians suppose may be the fat thus converted into slime. A liquid blister on the belly, after the bowels are free, often checks the disease.

9. *Splenitis*. Inflammation of the spleen. The symptoms are the same with inflammations of other intestines; but as the horse cannot point to the part where he feels pain, and as there is no external appearance of disease over the region of the spleen, it would be only leading our readers astray to affect a particular description of this disease.

10. *Hepatitis*, or inflammation of the liver. When the liver becomes the seat of active inflammation, the symptoms are nearly the same with those of enteritis, or inflammation of the intestines, except that the pain is not so intense on pressing the belly with the hand; the extremities are cold, the flank heaves, the pulse hard and wiry, and the mouth, nostrils, and eyes, are tinged somewhat with a yellow color. In proportion to the violence of the disease the horse's strength fails, and in some cases he can scarcely stand. The bowels may be either very costive or the reverse, as this will depend upon whether the inflammation stimulates the liver to throw off a great deal of bile, or to prevent it from its office almost entirely; in the former case, fetid black purging takes place, and in the latter, costiveness and extreme yellowness of the nostrils and mouth. There is great thirst in this disease, and the skin is mostly dry. In the early stages of the complaint bleeding must often be resorted to, after which the following purgative must be

given, so as to clear out well the intestinal canal. Take of castor oil eight ounces, gruel half a pint.

11. *Nephritis*. This disorder may arise from peritonitis (inflammation of the bowels), excessive over exercise, or from drawing weighty loads beyond the animal's physical strength, whereby the loins become seriously affected. The horse, in such cases, should be bled copiously, until the inflammatory appearances subside. A warm embrocation should be applied to the diseased parts, composed of oil of turpentine, hartshorn and olive oil. The best embrocation, however, is the following:—Oil of turpentine one ounce, liquor of ammonia two ounces, olive oil four ounces, spirits of camphor one ounce.

12. *Ophthalmia*. When the complaint is the result of external injury, use a little of the following eye-water:—Take Goulard's extract one ounce, rose water one quart, shake together in a bottle. In all cases of inflammation of the eyes a purging ball must be given, first with a mash, and then on using the following eye-water:—Of sulphate zinc three drachms, of common water one pint. Mix and wash a little into the eye. This is the best possible collyrium for all sore eyes; the eyelids must be well bathed with this water three or four times a day, fine linen rag must be used, and when you wish you can easily separate the lids and draw the rag over.

13. *Psorophthalmia*. A dim cloud over the eye, swollen and inflamed eye-lids; generally closed, the globe of the eye red and dull, increased sensibility, and a disposition to avoid light; if the eye-lids be separated, the membrane is seen covering a great portion of the eye, in order to protect it from the light, and to supply the office of the eye-lids, a hot burning humor runs from the eye, irritates the cheek and destroys the hair in its course; sometimes the surface of the eye, from an infusion of lymph, appears quite opaque. The vessels in the white of the eye are much inflamed, and contain red blood, so are the smaller, the vessels of the apple of the eye; hence the defect in the vision of the horse. First blind the horse, and then bathe the eye three or four times a day with the eye-water, give him a mash of scalded bran twice a day for a few days, and then give him the following ball:—Take Tartar emetic one drachm, James's powder one drachm, calomel half a drachm, Castile soap two drachms. Make this into a ball, give it to the horse at night, and the following purge next morning fasting. Take of Barbadoes tar six or seven drachms, Castile soap two drachms, powdered ginger half an ounce, oil of juniper half a drachm, nitre two drachms. Make a ball with buckthorn syrup: two hours after you give this, give him a mash and warm water, and physic him moderately every five or six days for two or three times.

14. *Poditis*. Founder of the foot. All veterinary practitioners of eminence and experience have universally admitted that it is impossible, at least up to the present time, to effect a radical cure for this too general and fatal disease.

15. *Anticore*. The chief remedies for this unfrequent disease are bleeding and purging, with fomentations.



## Genus II.—ABSORBENT SYSTEM.

**Species 1. *Anasarca*.** Young horses, while teething, are very frequently exposed to this disease; the torture they endure at this period prevents them from chewing their food sufficiently, whence arise various affections of the stomach, which produce general dropsy. The animal exhibits, in such cases, general drowsiness, inability to exercise or eat; the sheath, belly, and chest appear much swollen. At length the whole surface of the body becomes affected, and, on pressing with the knuckles or fingers on the animal, the impression remains a little time, and then fills up. Horses, aged, and hard worked, when turned into bad grazing and damp grounds, are much exposed to this disease. The horse should be taken in, and a few diuretic and purging balls should be given; he should be regularly exercised, in order to create a sudorific and diuretic action. If these remedies prevail, let his regimen consist of warm bran-mashes, and small portions of the best hay; and, when his bowels are well opened, the following tonic draught should be given every morning:—of ale two pints, tincture of opium two drachms, tincture of muriate of iron three drachms. Mix.

**2. *Hydrelcus*.** Water farcy. This is only another name for the foregoing disease, when ulcers are the consequence of the dropsy. The treatment in every respect is the same. Farriers call every partial dropsical affection water farcy; but those affections have nothing to do with the disease called farcy.

**3. *Ascites*.** Dropsy of the belly. This disease often accompanies general dropsy. The seat of it is the cavity of the abdomen, immediately within the lining membrane, called the peritoneum. The treatment is the same as that of general dropsy, with the exception that, when the belly becomes much distended, tapping is necessary; and this is done by puncturing in the centre of the abdomen, half way between the navel and sheath. Diuretics, purgatives, good living, with gentle exercise, will often cure this disease.

**4. *Hydrothorax*.** Dropsy of the chest is usually the consequence of inflammation of the lungs, or pleurisy. When the pleura, which is that membrane immediately enclosing the lungs, has been suffering from inflammation, a debility remains after the inflammatory action subsides, and the fluid which its surface naturally secretes for the necessary purpose of lubrication is so increased, as to accumulate within the cavity of the chest to the extent often of many gallons, and that in no very great space of time. The symptoms are, great difficulty of breathing, enlargement of the sides, of the chest and belly, loss of appetite, the animal becomes thin and baggard, restless, and cannot lie down but for a short time, and sometimes not at all. So like are the symptoms to inflammation of the lungs and pleurisy, that the veterinarian must form his decision from the history of the disease. The disease may be first treated by medicine, such as opening the bowels occasionally, using diuretic balls daily, with a drachm of calomel every second night, and proper diet; but, when the bad symptoms appear rather to increase than decrease,

the operation of tapping will be necessary. This is done by puncturing the cavity through the ribs, near their cartilaginous ends; and between the seventh and eighth, or eighth and ninth ribs, will be the best place to puncture. The skin must be divided by a scalpel, and the trochar pushed in and rather backwards, and close to the anterior edge of the rib, to avoid wounding the artery. The canula is then to be left in until the water be drawn off, and taken out quickly, so as to admit as little air as possible. A dressing of sticking plaster is then to be put on.

**5. *Hydropericardium*.** Dropsy of the pericardium. This disease is formally mentioned by writers; but it appears that we never can either ascertain positively that such disease is present, or do any thing more for its relief than to keep the horse regular and quiet, administering occasional physic and diuretic balls. The nature of the disease is a superabundant increase of the lubricating fluid, which the pericardium, or bag, in which the heart is enclosed, secretes. It is mostly fatal.

**6. *Hydrocephalus*.** Water of the brain. This disorder may arise from a plethoric habit, a determination of blood to the head, a debility of the brain in performing its natural functions, or from water lodged in the cavity or cavities of the brain. The symptoms vary according to the early or advanced stages of the disease; the horse appears heavy, drooping, and stupefied; he often suddenly rears up, staggers about, becomes violently convulsed, and then lies down exhausted. Hydrocephalus is, in nineteen cases out of twenty, considered incurable by our most experienced veterinarians. However, if attended to carefully at first, the animal may survive for years. When the first symptoms are apparent, bleed profusely: if the horse be of a plethoric habit, and used to high feeding and little exercise, let purgative doses be given; and, if so constipated as to render their operation insufficient let clysters of castor or olive oil, with warm water, be served until the bowels are free, and all appearance of inflammatory action ceases.

**7. *Hydrocnemia*.** Dropsy of the legs. To remove swelled legs requires great attention. The animal must be physicked, and a diuretic ball administered every second day. The legs must be hand-rubbed every day, and the horse walked about morning and evening.

**8. *Diarrhæa*.** Looseness. Most animals are afflicted with this disease more frequently than the horse, yet veterinary surgeons who are in very extensive practice know that confirmed cases are not unfrequent. It will be produced either from an increased secretion of bile, or from impaired action in the absorbent vessels, which prevents their taking up those fluid particles that enter into combination with the dung. The appearance of the stools is generally liquid, and they come from him in small quantities at every slight movement that he makes. In the cure of this disease apply a fresh sheepskin over the loins, keeping the body of the horse moderately warm by covering it with a rug, and exhibiting the following drink twice a day until the purging ceases:—take aniseeds and carraway seeds powdered, of each one ounce, prepared

chalk two ounces, fine opium half a drachm; mix in a pint of linseed gruel, and administer. Should the purging continue three or four days after this drink has been given, it will be necessary to give the following astringent medicine three or four times a day :—Take of powdered ginger, dover's powder, of each two drachms; prepared chalk in powder, pomegranate shell powdered, of each one ounce; tincture of catechu one drachm and a half. Let these be mixed in one pint of warm gruel, and administer twice a day.

9. *Dysentery*. Moulten grease. This distressing complaint was formerly described by veterinarians as a melting down of the fat occasioned by excessive heat, and a discharge of that fat by the anus, accompanied by purging; even now farriers believe it to be the same thing, may some modern writers have thought it such! No man acquainted with the physiology of the horse can for a moment entertain so absurd an idea. The fact is, the disease is a constriction of parts of the intestines, accompanied with chronic inflammation of the inner coat, discharging a foetid matter and sloughing away in films, and in severe cases blood is discharged. The disease differs widely from the diarrhoea both in nature and treatment, and therefore requires skill in the practitioner to distinguish, as the treatment which applies to diarrhoea, if adopted in dysentery, must kill the animal. Chalk, opium, and other astringents are necessary and salutary in the treatment of the former, but poison in the latter. The symptoms very clearly mark the difference in both diseases; in diarrhoea there is nothing but an excessive purging; but in dysentery there is a discharge of matter apparently mixed with fat, and often blood, generally accompanied with costiveness—little or no dung is discharged. Fever sometimes accompanies these symptoms, and sometimes the disease degenerates into inflammation of the bowels. The first thing to be done is to bleed the horse, then, the same day, administer the following :—Castor oil four ounces, gruel two pints, ipecacuanha one drachm. Mix.

10. *Tympanitis*. Windy colic. This is generally produced by too much juicy food, as clover and different grasses, new corn, or new hay; or by eating too much after great fatigue; or by checked perspiration, from whatever cause that may happen. The health of the bowels is disturbed, and they are distended in some parts and contracted in others. The symptoms are restlessness of the horse; he rises with rapidity and lies down again; he stamps with his fore hoofs and strikes his belly with his hind feet, and he rejects all food. When violent, it occasions convulsions; his limbs are extended as in death, and his eyes are turned up; his extremities are alternately hot and cold; sweating and shivering fits succeed each other; he cannot stool, and his head is frequently turned towards his flanks; he falls suddenly down, and rolls over on his back. The best plan of treatment is the following :—Take oil of turpentine, sweet spirits of nitre, oil of junipers, and laudanum, of each half an ounce; mix in a phial. Caraway seeds and ginger powdered, of each one ounce. Mix the

powders in a pint of warm peppermint water, and add the contents of the phial, and give the whole immediately. If he should not be better in two hours, repeat this, and remove four quarts of blood, this will assist in removing the spasms; but if he be restless two hours after bleeding, give him the following drink and clyster :—Take castor oil one pound, prepared kali half an ounce, ginger one ounce. Mix in a pint of warm gruel, and give it immediately. This clyster and drink generally succeed in procuring an evacuation through the bowels; but, if twelve hours after using them that effect be not produced, you must repeat them.

11. *Hydrospanis*. Dry gripes is a dangerous and distressing disorder. It is first discovered by the horse frequently straining to dung. The rectum and the end of the intestines are overloaded and pressed to the fundament; this causes constant endeavours to expel the contents. The tail of the horse has a quick and frequent motion, and he frequently tries to stool, which he can only partially effect, as the dung presses on the neck of the bladder. The disease seldom requires more than the clysters I have mentioned to afford relief, or the following :—Take warm gruel four quarts; then dissolve a handful of common salts, two ounces of Epsom salts, and half a pound of treacle, sweet oil half a pint. Mix them well and use.

#### 12. *Scolecia*. Worms.

*a* *Botts*. The botts are distinguished from all other species of worms by their shape and length; they are of an oval form, and their length varies from half an inch to one inch; in shape and general appearance they resemble casks in miniature; the basis of their color is red, always presenting, however, a dark brown or yellow hue. Botts are frequently found in great numbers, resembling solid masses, and adhering firmly to the internal coat of the stomach, by means of two strong curved fangs, situated at the smaller end, and by a series of very short feet, arranged on each side of the belly; the body of the bott is composed of ten or twelve circular hoops or joints, and the mouth is generally supposed to be placed at the smaller end, between the two fangs already mentioned.

*β* *Round worms*. In shape, and other circumstances, the round worm differs materially from the bott; its color is usually white; its appearance much resembles that of the common earth-worm; its length averages from eight to ten inches; and it is generally found infesting the small intestines.

*γ* *Ascarides*. *Ascarides* differ in every respect from the preceding species of worms; they generate exclusively in the larger intestines, and, although they keep the horse in a poor condition, they scarcely ever prove fatal; and then only when the constitution of the animal has been much decayed. Both the *ascarides* and the round worm are frequently voided with the dung. The treatment of all three species of worms is now pretty well understood. It is similar in each case, and, by paying a due and prompt application to the following line of treatment, a cure may be easily and speedily effected: Take calomel one drachm, castile soap one drachm,



Mix this into a mass with syrup of buckthorn, and give it to the horse at night. In the morning it will be necessary to administer either the following purging drink or ball, as may be preferred:—Take Barbadoes aloes, according to the age and strength of the horse, from three to six drachms, worm seed in powder half an ounce, powdered gentian half an ounce, powdered caraway seeds one ounce. Mix these, and administer it in a pint of strong decoction of wormwood. This drink must be repeated in four or five days time, but the mercurial ball must be omitted after the first exhibition.

13. *Icterus. Jaundice.* As the horse has no gall bladder, but a simple duct, by which the bile is passed from the liver to the intestinal canal, the diseases of the biliary system are not frequent. Jaundice seldom or ever arises as a disease in itself, but very often as symptomatic of other complaints. The symptoms are a yellowish tinge on the inner surface of the eye-lids, eye-balls, nostrils, and mouth, costiveness, dry and hard dung, with debility, loss of appetite, thirst, and high-colored urine. The object to attain, in the cure of jaundice, is to promote a good secretion of bile and urine: for this purpose, calomel and aloes, in the following proportions, must be given every other day:—Take of calomel one drachm, of aloes two drachms. Beat up into a ball, with a little mucilage of gum arabic. When this operates, it need not be repeated; but, if it do not, a dose of salts and gruel must be administered to assist its operation. On the succeeding day give the following:—Take of squill pill a drachm, of nitre half a drachm, of calomel a scruple. Make into a ball with a little soap. Continue the alternate uses of the above medicines, assisted by mashes, warm ale, &c., until the dung becomes of a healthy appearance, and the yellowness abates, which will be in a few days, unless other diseases are connected with jaundice. Let the horse be walked about twice a day, and covered in the stable during the cure.

## PART II.

### CHIRURGICAL OPERATIONS.

1. *Bleeding.* The great vein of the neck is decidedly the best to bleed from in all cases requiring general blood-letting. The operation, although simple, is frequently done in a most clumsy manner, and serious injuries often follow the improper use of the fleam. We prefer a lancet in most cases; but, if the fleam be used, let the operator gently rise the vein, by pressing his finger softly upon it, and, at the part immediately above where the vessel divides into two branches, open it by a well-directed stroke. Opening the temporal artery, in affections of the head and eyes, is an operation of great importance, and often relieves when other bleedings fail. Bleeding in the toe, as it is called, is topical, and therefore is of great use in affections of the foot; and so, perhaps, bleeding from the veins of the thigh may be found beneficial, as a topical remedy.

2. *Clystering.* This useful and innocent mode of exhibiting medicine is too much neglected, and when employed is frequently done in a slo-

venly and ineffectual manner; that is by means of large syringes. The best apparatus is a pewter pipe, about fourteen inches long, and an inch in bore; they may be purchased at Mr. Long's, veterinary instrument maker, Holborn, London. To this pipe a large pig's or bullock's bladder should be firmly tied. An opening clyster is made by mixing a handful or two of salt with four or five quarts of warm water: to this a little hog's lard or sweet oil should be added. Linseed tea, or thin gruel, with a little treacle or sugar, makes a good emollient clyster. And an anodyne or opiate clyster is made by dissolving from one to three or four drams of crude opium in three or four pints of warm water. This last kind of clyster is employed in locked jaw, especially when it is found impossible to give medicine by the mouth. In this case nourishment must be given also in clysters. Nourishing clysters are made of broth, milk, rich gruel, and sugar. It was observed by Gibson that when nourishing clysters are given in locked jaw, they are sucked upwards by the bowels, and absorbed into the blood. He sustained a horse a considerable time in this way.

3. *Fomentations.* Fomentations are commonly made by boiling wormwood, chamomile flowers, bay leaves, rue, and elder flowers or leaves in water. Hemlock and poppy heads are used for anodyne fomentations. Warm water, probably, answers as good a purpose as any thing. In painful swellings, where there is great tension of the skin, a little sallad oil may be a useful addition as a relaxant, or some fresh hog's lard. Fomentations should not be used so hot as to give pain, but should be continued for a considerable time, and frequently repeated; on this indeed their efficacy greatly depends; and on this account the emollient poultice is always preferable when the situation of the inflamed part is such as will admit of its being applied; for a poultice, when properly made and applied, may be considered as a continual fomentation.

4. *Poulticing.* The cheapest poultice, and perhaps as good a one as any, is made by pouring boiling water on a quarter of a peck of bran, so as to make a very thin mash; some linseed powder is then to be stirred into it, and a little hog's lard. When linseed powder cannot be had, some oatmeal or flour may be substituted for it. Boiled turnips make a good poultice, and may be improved by the addition of a little linseed powder. Poultices are generally too small, and confined, and too dry. They should be considered as a means of keeping water, mucilage, and oil constantly in contact with the inflamed part; it will then be evident that if they are not constantly moist in every part they cannot answer this purpose.

5. *Blistering.* Before a blister is applied, the hair must be cut off from the part as closely as possible: this may be much more easily and effectually done by means of shears than scissors. The blistering ointment is then to be well rubbed into the part with the hand; and, after this has been continued about ten minutes, some of the ointment may be smeared on the part. In blistering the legs, the tender part of the heel, under the fetlock joint, is to be avoided, and it may be better to rub a little hog's lard on it in order to

defend it from any of the blisters that may accidentally run down from the leg. When the legs are blistered, all the litter should be removed from the stall, and the horse's head should be carefully secured to prevent his rubbing the blistered parts with his nose.

**6. Firing.** The instrument to be used for this operation is called the firing-iron; it should have an edge as thin as a blunt adze. Before the iron is used, the hair should be cut off from the part to be operated upon as closely as possible. The instrument should never penetrate the skin, but merely the outward surface of it, or cuticle, leaving a brown mark, which, if properly done, will exude a fluid soon after the operation. If the back sinew or fetlock joint is to be operated upon, the uppermost leg is to be secured and kept straight by webbing fastened from the knee to the hind leg above the hock, and another piece of the same material passed round the pastern, and securely held by an assistant. The under leg should be secured similarly. In operating on the hind leg, it will of course be the under one, and it should be taken out of the hobble; it should be drawn out by an assistant, and held by a piece of webbing. In firing the back sinew, or pastern, of the hind leg, the leg must be drawn towards the fore leg, or shoulder, by two pieces, one passed round the pastern, and the other round the hock, both fastened to a collar placed round about the horse's neck. In sprains it may be secured in a similar manner. When the operation is over, the parts fired should be rubbed with blistering ointment; the horse may be then put into a loose box, with a cradle on his neck, and may be turned out to grass in a fortnight, if the disorder do not appear to warrant a different treatment.

**7. Rowelling.** Rowels are a kind of drain, and as good as setons. They are produced by an incision in the skin when it is loose, and about an inch long. The incision done, an instrument, called a cornet, which is the tip of a horn, is to be introduced, or else the finger, and the skin separated from the flesh for an inch round. A round piece of leather, with a hole in the middle, is to be introduced into the opening, first having been covered with tow and smeared with simple ointment—basilicon or hog's lard. The opening is then to be stopped up or plugged with tow, and left there until matter forms, which will be in four or five days. The rowel is then to be removed, cleaned, and replaced; which is to be done every day after, as long as it is necessary to keep the wound open for a discharge.

**8. Setons.** A seton is put in by passing an instrument, called a seton needle, through the skin, armed with lamp-cotton, or tape, or threads. The object is to promote a discharge of matter from any particular place, and keep up an irritation there. A seton is easier done, and altogether a more useful operation than the rowel. The lamp cotton, or tape, is to be drawn a little out every day, so as to let the new part of it be in contact with the wound.

**9. Docking.** Docking, when done early; that is, when the colt is a mere sucker, may be performed with any common knife, and tied up with a common string, to prevent bleeding; but,

if the operation be deferred until the horse be full-grown, a docking knife is to be used. The hair is to be cut closely off the part of the tail to be cut, and the instrument's edge so placed as to come over the hollow between any of the rings or bones of the tail—a simple motion completes the operation. Some sear the tail with a hot iron after the operation; but if a strong twine be tied on the part above the incision, and before the operation, there will be nothing to warrant searing.

**10. Nicking.** As this operation is seldom performed, we shall not occupy any space in describing a *modus operandi* of fanciful cruelty.

**11. Castration.** The best time to castrate is when the animal is about one year old. The horse is to be thrown down upon the left side, and the right hind leg drawn to the shoulder by means of a strong piece of web passed round it in a noose. The testicle is then to be grasped by the operator in his left hand, and pressed gently, so as to render the skin upon it tense. An incision should then be made through the outer skin, and about three inches in length. Having done this, the knife is to be gently used till the vaginal sac is cut through, which will be known by the issuing of water from it. One of the blades of a pair of scissors is then to be introduced, and the vaginal sac cut up as far as the external incision. The testicle will now protrude and contract, but in a little time the cord will relax, when it is to be placed in the clams, leaving the testicles and upper portion, called the epididymis, outside them. The clams are to be made tight, so as to prevent the possibility of the slipping up of the cord after it is cut. This being done, the cord is to be cut with a nearly red-hot firing iron. This is all the searing that will be necessary, and the clams are then to be taken, when the other testicle is to be operated upon in the same manner. No dressing is necessary, and but little if any bleeding will follow. Too much searing often causes bleeding, the very thing it is meant to prevent. It is quite enough to cut off the testicles with a hot iron without further searing. When the operation is finished, the horse should be turned into a box, and in about ten days he will be well, and may be worked without danger. The swelling which occurs after is of no consequence, it will go away; however, if it be considerable, physic should be given.

**12. Cropping,** an operation seldom performed.

**13. Nerve operation.** The horse having been secured upon his side, an incision, about three inches above the most prominent part of the fetlock joint, that is the most prominent part when viewed sideways, and just within the back sinew. The incision is to be made quite through the skin to the cellular substance, and the instrument should be sharp, so that the first stroke of it may be sufficient to make the incision, and thus be the less painful to the animal as well as more creditable to the operator; however, care must be taken not to carry the incision down to the cellular substance, which will appear on opening the skin. This must then carefully be dissected away, and the nerve will appear, and immediately behind it a vein of a



bluish color. A crooked needle, armed with a small ligature, or twine, is now to be carefully passed under the nerve from within outward, and the operator must not touch the vein with the point, lest it be wounded, and so embarrass him with the blood which must consequently flow. To avoid this the needle should be a little blunt at the point. When this is done, the needle is to be removed from the twine, and, the nerve having been gently drawn out by the ligature, the cellular substance underneath it is to be cautiously dissected away, taking care not to wound in the slightest degree the nerve itself. A curved bistoury is now to be passed under the nerve, as high up as can be admitted, and at one steady, clean, and well-directed cut, it is to be divided. The bistoury must be as sharp as possible, and the cut to be drawn, and not by pressing the blade directly upwards, as the least laceration of the nerve is dangerous, as well as unnecessarily painful to the animal. The operation itself, of dividing the nerve, gives excessive and sudden pain, which causes the horse to struggle violently; this must be guarded against; but when the division is complete the pain is over. The inferior portion of the nerve, or that which remains next the hoof, is to be drawn out by forceps, and cut out to the extent of from half an inch to an inch. The skin should then be closed, and one stitch applied, which concludes the operation. No dressing or bandage is necessary, and the wound will heal in about three weeks. It will be advisable to turn the horse out to grass a little before the wound is healed, and he should be kept there for about a fortnight, or three weeks, or perhaps more.

14. *Bronchotomy.* In cases where suffocation is likely to ensue from the windpipe, or trachea, being obstructed, this operation becomes necessary. It is done by first making a longitudinal incision through the skin, so as to lay the trachea bare: when with sharp scissors cut out a little square portion of the cartilage, so that the animal can breathe through the opening, until the cause of suffocation is removed. The aperture is to be kept open by a pipe, or large cut at both ends. This operation has been performed for the relief of roaring, but the desired success has never followed it.

15. *Œsophagotomy.* This operation is useful in cases where a large ball, or an apple, or accumulation of bran, &c., may occasion choking. It is done by laying bare the œsophagus, at the left side, immediately over the tumor; then cutting it, and removing the obstruction. Care must be taken to keep clear of the arteries in the incision.

### PART III.

**CURVÆ HABENDI.**—OFFICES TENDING TOWARDS THE HEALTH AND PRESERVATION OF THE ANIMAL.

1. *Shoeing.* When a foot deviates from the sound form, the shoe must be formed accordingly. If the sole is in any degree flat and thin, the wide hollow shoe is absolutely necessary. If the heels are tender, and have corns, the bar shoe is the best that can be applied; and the tender heel including part of the quarter, crust as well as

sole, should be so pared down as to be at the distance of a quarter of an inch or more from the corresponding part of the shoe. In preparing the foot for the shoe, the loose parts only of the sole may be removed with the drawing knife; the ragged parts of the frog should be cut away, as they may serve to harbour dirt or gravel. If the toe of the frog is very hard and more prominent than the other parts, it should be pared down moderately. The heel of the shoe should have a perfectly flat and level bearing upon the junction of the bar and crust, which should be rasped to a flat surface for receiving it. The shoe should never extend beyond this part. The whole bottom of the foot, indeed, should be rasped so as to be perfectly flat and level all around, so that, when the horse stands on a plane surface, every part of the crust should bear on that surface. The shoe should be made level also on both surfaces, by the same criterion, and then it must of necessity be fitted to the foot. When this is the case, there will not be that motion in the shoe in travelling by which so many shining surfaces are often worn in it, and by which the nails are loosened, and if they are made of indifferent iron, or badly made, often broken.

2. *Stabling.* Loftiness is very desirable in a stable. It should never be less than twelve feet high, and the best method of ventilation is by means of a chimney or square opening in the ceiling, communicating with the open air, or it may be made in the form of a dome or cupola, which would be more ornamental. The chimney need not be open at the top so as to admit the rain, but should be roofed, and have lateral openings by means of weather-boards, as they are termed. As to the admission of air into the stable, the usual means provided for that purpose are quite sufficient; that is, by windows. The best floor for a stable, by far, is hard brick; and, next to that, limestone not less than one foot square.

3. *Feeding.* In the usual way of feeding and treating horses, no attention is paid to the state of the stomach when they are put to work, but frequently they are put into a chaise, or coach, or ridden off at a quick rate with their stomachs loaded with food; the consequence of this has often been gripes, inflammation of the bowels, and even sudden death. The hay, as well as the corn, should, if possible, be divided into four portions, and each portion, both of oats and hay, should be wetted with water: this will facilitate mastication and swallowing, and likewise digestion; a horse thus fed will so quickly digest that he will always be fit for his labor. The largest portion, both of oats and hay, should be given at night; and the next in quantity to this, early in the morning; the other two portions in the forenoon and the afternoon, or about twelve and four. But this must of course depend upon the kind of work a horse is employed in, and must be regulated accordingly. Horses that have been accustomed to an unlimited allowance of hay will often eat their litter when put upon a proper diet, but this must be prevented by a muzzle.

4. *Exercise.* The horse was evidently designed for exercise, and for the use of man. His

vast muscular power, and the impenetrable defence attached to his feet, were certainly not given for his own use only. If kept in a stable without exercise, his muscular power declines, his digestive organs become diseased, and so do the organs of respiration. The hoofs grow, and there is no wear; for the little that may be worn off, merely by the pressure of his own weight when standing still, is prevented by the shoes. The toe being thus elongated, the back sinews are often strained; the foot becomes hot and inflamed, its horny covering contracts; the frogs become rotten, and incapable of performing the office for which they were designed; in short, the whole body becomes diseased. Exercise then, it is evident, is essential to his health, and even his existence; and every part of his structure and economy appear to demonstrate that he was intended for the service of man. His powers, however, are limited, and so should his exertions be: but it is a fact, which must be regretted by all considerate persons, that the immoderate work in which he is often employed, so far from being salutary, or proportionate to his strength, as undoubtedly it was designed by his Creator that it should be, is injurious, and even destructive in a very considerable degree. And what greatly aggravates the mischief is, the early and premature age at which he is commonly employed.

**5. Training.** When a horse is brought in for training he should be fed with hay and oats, and if greedy of water or hay, or if he appears inclined to eat his litter, he should be limited in hay and water, and be muzzled the last thing at night. For the first week he should have walking and gentle trotting exercise for an hour or two every morning. The stable should be kept clean and cool. The second week his exercise may be increased a little, and so may his oats. Should he appear, however, rather dull, the membrane of his eyes rather red or yellow on lifting the eye lid, and the dung hard in small knobs and shining or slimy, it will be advisable to bleed moderately and give a mild dose of physic, for which he should be prepared by giving two or three bran mashes a day, for two days. The fourth week he may be worked moderately, and, if wanted for hunting, he should be put into a canter or hand-gallop once a day; and after this it will be necessary to increase his pace twice or three times a week, so as to make him sweat freely; taking care that he is walked for some time afterward, that he may become rather cool before he returns to the stable, when he must be well dressed, fed, and watered, have a good bed placed under him, and be left to his repose. When a horse has been brought up from rich pasture he is generally loaded with fat, and requires a great deal of walking exercise and careful feeding. He may be trotted gently, however, after the second week, but will not be for a quicker pace for a month at least. During this time he should have two or three doses of mild physic, and when first taken up such horses generally require to be bled.

The art of training this high mettled creature, and rendering him subservient to the use of man, was once in such repute that *ἵπποδαμος*, or

horse breaker, was thought to be a title worthy of kings and heroes, and so unaccountable was the appearance of the first men who were seen on horseback in the isles of the Gentiles, or the posterity of Javan, that some imagined the body of the horse and his rider to be mutually incorporated. But in such admiration was this art sometimes held, that the elder poets and bards seem inclined to ascribe its discovery to a superhuman agency; and with these sentiments Æschylus introduces Prometheus boasting that among useful inventions he had taught mortals to render horses obedient to the yoke, and to become a sort of vicarious successors to man in his labors, as well as an ornament to the splendor of riches.

*κἀνὲν αὖ πρῶτος ἐν ζυγοῖσι κνωδάλα  
ζευγαλαὶ δουλεύοντα, σενασιν θόπως  
θνητοῖς μεγίστων διαδοχοὶ μοχθημάτων  
γνοιὺνθ', ὅφ' ἄρματ' ἤγαγον φιλημῶν  
ἵππους, ἀγαλλία τῆς ὑπερπλοῦτος χλιδῆς.*

**6. Soiling,** feeding a horse with cut herbage.

**Anatomical structure of the foot.** The hoof is a secretion from the living part of the foot, not wholly from the coropet, but from the living surface which it covers, named by Mr. Coleman the laminated substance of the foot; and, by others, the elastic processes or membranes of the foot. As the quantity of horn necessary for the defence of the sensible foot is considerable, a large quantity of blood is distributed to it for the purpose, and is supplied by two large arteries which pass down on each side of the pastern; these give off considerable branches to the frog, cartilages, and coronary ring; but the trunk of the artery enters in at the posterior and inferior part of the coffin bone, and divides into eight branches within the bone, which pass out at the circumference, or angle of the toe, and give off innumerable branches about the inferior part of the laminated substance, especially about the toe. The lateral cartilages are two elastic bodies attached to the coffin bone, at its upper part, and proceeding backward, like expanded wings, terminate at the extremity of the heel; they assist in expanding the heels and quarters. The navicular, or nut bone, is placed behind the coffin bone, and is attached to it as well as to the small pastern bone, and affords a synovial or slippery surface for the flexor tendon to move upon. This part with the coffin bone forms the coffin joint.

The small pastern articulates with the coffin bone and the nut bone below, and with the great pastern above: these are all the bones comprehended in a description of the foot. The coffin bone, however, is the only one which deserves particular notice, and that on account of the peculiarity of its structure. It is completely cellular throughout, and has more blood within it than any one bone in the body, though not far from being the smallest of the whole. The great flexor tendon is inserted into the bottom of the coffin bone, and the extensor tendon on its front and upper part. Thus the sensible foot is composed of the pastern, the navicula, and the coffin bone; the lateral cartilages, the sensible frog and sole, and the laminated substance; at the



upper part of which there is a kind of cartilaginous ring which has been named by Mr. Coleman the coronary ligament, and by Mr. Bracey Clark the coronary frog band. This coronary ring, instead of terminating at the heels, is continued into the frog, and from this connexion and its situation over the lateral cartilages, it must be subject to the same motion which these parts have. When the frog then is exposed to that pressure for which it was evidently designed, it expands and contracts, and in so doing communicates a similar motion to the cartilages, the coronary ring, and the heels and quarters of the hoof.

VEVAY, a post township of the United States, and capital of Switzerland county, Indiana, on the Ohio, eight miles above the mouth of the Kentucky, and distant from Cincinnati, Louisville, and Lexington, about forty-five miles. Just below this place are the celebrated Swiss vineyards, where the culture of the vine has been introduced with good success. The settlement, called New Switzerland, was commenced in 1805, by some emigrants from Pays de Vaud. The country at the back of Vevay is hilly, but fertile.

VEX, *v. a. & v. n.* } *Lat. vero.* To plague;  
VEX'ATION, *n. s.* } torment; harass: to fret;  
VEX'ATIOUS, *adj.* } be uneasy: vexation is the  
VEX'ATIOUSLY, *adv.* } act of troubling, or state of  
being vexed: the adjective and adverb correspond.

When she pressed him daily, so that his soul was vexed unto death, he told her all his heart.

*Job xvi. 16.*

Do you think

The king will suffer but the little finger

Of this man to be vexed? *Shakespeare. Henry VIII.*

Your children were vexation to your youth;

But mine shall be a comfort to your age. *Shakespeare.*

Albeit, the party grieved thereby may have some reason to complain of an untrue charge, yet may he not well call it an unjust vexation. *Bacon.*

Ulysses gave good care, and fed

And drunke his wine, and eat and ravished

His food for mere vexation. *Chapman.*

He leads a vexatious life, who in his noblest actions is so gored with scruples, that he dares not make a step without the authority of another. *Digby.*

Passions too violent, instead of heightening our pleasures, afford us nothing but vexation and pain. *Temple.*

Still may the dog the wandering troops constrain  
Of airy ghosts, and vex the guilty train! *Dryden.*

Consider him maintaining his usurped title by continual vexatious wars against the kings of Judah.

*South.*

Vexatious thought still found my flying mind,  
Nor bound by limits, nor to place confined;  
Haunted my nights, and terrified my days. *Prior.*

Ranged on the banks, beneath our equal oars,  
White curl the waves, and the vexed ocean roars. *Pope.*

VEXILLARII, in antiquity, signals. See SIGNAL.

VEXILLUM, in botany. The upper petal of a pea bloom, or butter-fly shaped flower, which is generally larger than any of the others.

VEZZANA, a small town of the Austrian states in the south of Tyrol, near Trent.

UFFCULME, or UFFCOLUMBA, a market-town in Bampton hundred, on the river Columb, Devonshire, three miles north-east of Collumpton, and 160 from London. Market on Monday and Wednesday. Fairs, Wednesday before Good Friday, July 6th, and August 12th.

UG'LY, *adj.* } *Sax.* oga, terror, fear; Goth.  
UG'LINESS, *n. s.* } *uggia.* Originally written

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ously. Offensive to the sight; deformed: loathsome; hateful: the noun substantive corresponds.

All that else seemed fair and fresh in sight,  
Was turned now to dreadful ugliness. *Spenser.*

O, I have passed a miserable night,  
So full of ugly sights of ghastly dreams. *Shakespeare.*

Was this the cottage, and the safe abode  
Thou told'st me of? What grim aspects are these.

These ugly-headed monsters? *Milton.*  
She takes her topicks from the advantages of old age  
and ugliness. *Dryden.*

VIACHA, a settlement of Peru, in the province of Pacages.

VIADANA, a small town of Austrian Italy twenty miles S. S. W. of Mantua.

VIADRUS, an ancient name of the Oder. See SUEVUS.

VIAL, *n. s. & v. a.* *Gr.* φιάλη. A small bottle to enclose in a vial.

Take thou this vial, being then in bed,  
And this distilled liquor drink thou off. *Shakespeare.*

Another lamp burnt in an old marble sepulchre belonging to some of the ancient Romans inclosed in a glass vial. *Wilkins.*

This she with precious vialled liquors heals;  
For which the shepherds, at the festivals,  
Carol her goodness loud in rustick lays. *Milton.*

Chemical waters, that are each transparent, when separate, ferment into a thick troubled liquor, when mixed in the same vial. *Addison.*

VIAL DUCLAIRBOIS (Honore Sebastian), late director of the school of naval engineers, and chief of the maritime artillery at Brest, was a native of Paris, and, after having been a lieutenant in the navy, in 1754 entered the army, and served till 1777, when he resumed his former profession. The talents which he displayed in the construction of vessels procured him in 1793 the post of engineer constructor-in-chief. He had some other appointments previously to that of director of the school of engineers at Brest, which he held from 1801 till 1810, when his great age and infirm health obliged him to retire from the service. He died in 1816, aged eighty-three. He published *Essai Géométrique et Pratique sur l'Architecture Navale*, Brest, 1776, 2 tom. 8vo.; *Traité Élémentaire de la Construction des Vaisseaux*, Paris, 1787—1805, 2 vols. 4to.; and a translation of an English work on Ship-Building. He was also a principal contributor to the *Encyclopédie Méthodique*.

VIANA, a town of Portugal, province of Entre Douro e Minho, on the north side of the river Lima, not far from its mouth, contains 8000 inhabitants, whose chief employments are navigation, fishing, and the sale of wine. They carry on also some trade in corn, oil, and fruit. Forty-two miles north of Oporto.

VI'AND, *n. s.* *Fr.* viande; *Ital.* vianda. Food; meat dressed.

The belly only like a gulf remained,  
I' th' midst of the body idle and unactive,  
Still cupboarding the viand. *Shakespeare.*

These are not fruits forbidden; no interdict  
Defends the touching of these viands pure;  
Their taste no knowledge works, at least of evil.

*Milton.*

From some sorts of food less pleasant to the taste,  
persons in health, and in no necessity of using such viands, had better to abstain. *Ray.*

VIATICUM, in Roman antiquity, an appellation given to all officers of any of the magistracies, as lictors, accensi, scribes, criers.



**VIATKA**, a government or province of European Russia, bounded on the north-east by the government of Perm, and on the south by that of Kasan. It extends from 56° to 61° N. lat.; and has an area of 47,000 square miles. The capital is of the same name. 420 miles E. N. E. of Moscow.

**VIBRATE**, *v. a. & v. n.* } Latin *vibro*. To  
**VIBRA'TION**, *n. s.* } move to and fro with quick motion; make to quiver: to quiver; play up and down or to and fro: vibration, the act of doing so, or state of being moved in this way.

Breath vocalized, that is, *vibrated* or undulated, may differently affect the lips, and impress a swift tremulous motion, which breath passing smooth doth not.

*Holder.*

The air compressed by the fall and weight of the quicksilver, would repel it a little upwards, and make it *vibrate* a little up and down.

*Boyle.*

Do not all fixed bodies, when heated beyond a certain degree, emit light, and shine? And is not this emission performed by the *vibrating* motions of their parts?

*Newton.*

The whisper that to greatness still too near,  
Perhaps, yet *vibrates* on his sovereign's ear.

*Pope.*

**VIBRATION**, in mechanics, a regular reciprocal motion of a body, as a pendulum.

**VIBURNUM**, in botany, a genus of plants of the class pentandria, order trigynia; and in the natural system arranged under the forty-third order, dumosæ. The calyx is quinquepartite and above; the corolla divided into five lacinia; the fruit a monospermous berry. There are nineteen species, three of which are natives of Britain. 1. *V. lantana*, common viburnum, wayfaring, or pliant mealy tree, rises with a woody stem, branching twenty feet high, having very pliant shoots covered with a lightish-brown bark; large heart-shaped, veined, serrated leaves, white and hoary underneath; and the branches terminated by umbels of white flowers, succeeded by bunches of red berries, &c. 2. *V. opulus*, or gelder rose; consisting of two varieties, one with flat flowers, the other globular. The former grows eighteen or twenty feet high, branching opposite, of an irregular growth, and covered with a whitish bark; large lobated or three-lobed leaves on glandulose foot-stalks, and large flat umbels of white flowers at the ends of the branches, succeeded by red berries. The latter grows fifteen or eighteen feet high, branching like the other, garnished with large lobated, or three-lobed leaves, on glandular foot-stalks; and large globular umbels of white flowers at the ends of the branches in great abundance. This tree, when in bloom, exhibits a singularly fine appearance: the flowers, though small, are collected numerously into large globular umbels round like a ball; hence it is sometimes called snow-ball tree. 3. *V. tinus*, common laurustinus, or evergreen viburnum; grows eight or ten feet high or more, branching numerously from the bottom upwards, assuming a close bushy growth, with the branches somewhat hairy and glandulous; very closely garnished with oval, wholly entire leaves, of a strong green color, placed in pairs opposite; and whitish and red flowers collected numerously in large umbellate clusters all over the plant, at the sides and ends of the branches, from January until March or April, exhibiting a most beautiful appearance. There are many varieties.

**VICA POTA**, a goddess at Rome, who presided over victory.

**VIC'AR**, *n. s.*

**VIC'ARAGE**,

**VICA'RIOUS**, *adj.* } Lat. *vicarius*. The incumbent of an appropriated or impropriated benefice; a substitute or representative: a vicarage is the benefice of a vicar: vicarious, deputed, delegated, representative.

Procure the *vicar*

To stay for me at church, 'twixt twelve and one,

To give our hearts united ceremony. *Shakspeare.*

The soul in the body is but a subordinate efficient, and *vicarious* and instrumental in the hands of the Almighty, being but his substitute in this regiment of the body. *Hale.*

An archbishop may not only excommunicate and interdict his suffragans, but his *vicar-general* may do the same. *Ayliffe.*

This gentleman lived in his *vicarage* to a good old age, and having never deserted his flock died *vicar* of Bray. *Swift.*

**VICAR**, a person appointed as deputy to another, to perform his functions in his absence and under his authority. In the canon law it denotes a priest of a parish, the predial tithes whereof are impropriated or appropriated; that is, belong either to a chapter, religious house, &c., or to a layman who receives them, and only allows the vicar the small tithes, or a convenient salary. See **PARSON**.

**VICARS** (John), writer of some virulent pamphlets against the royalists in the civil wars, was born at London, and educated at Oxford. He became usher of the school in Christ's Hospital. He died in 1652.

**VICARY** (Thomas), the first anatomical writer in English, was sergeant surgeon to Henry VIII., Edward VI., Mary I., and Elizabeth, and chief surgeon of St. Bartholomew's hospital. His book is entitled *A Treasure for Englishmen*, containing the *Anatomy of Man's Bodie*, published in 1548.

**VICE**, *n. s.*

**VICED**, *adj.*

**VIC'IOUS**, } Lat. *vitium*. Depravity; wickedness; a course of action opposite to virtue; inordinate life; offence; fault; the fool of old shows: *vice* is used by Shakspeare for vicious, corrupted; depraved.

Be as a planetary plague, when Jove  
Will o'er some high *vice* city hang his poison  
In the sick air. *Shakspeare.*

No *vice*, so simple, but assumes  
Some mark of virtue on its outward parts. *Id.*

I'll be with you again  
In a trice, like to the old *vice*,  
Your need to sustain;

Who with dagger of lath, in his rage and his wrath,  
Cries, Ah, ha! to the devil. *Id.*

No spirit more gross to love  
*Vice* for itself. *Milton.*

He heard the heavy curse,  
Servants of servants on his *vicious* race. *Id.*

I cannot blame him for inveighing so sharply against  
the *vices* of the clergy in his age. *Dryden.*

The foundation of error will lie in wrong measures  
of probability; as the foundation of *vice* in wrong  
measures of good. *Locke.*

**VICE**, *n. s. & v. a.* Fr. *vis*; Belg. *vija*. A screw, or press operating by screws; hence gripe, grasp: to draw by a kind of violence; to gripe.

With all confidence he swears,  
As he had seen 't or been an instrument  
To *vice* you to it, that you have touched his queen  
Forbiddenly. *Shakspeare.*

He found that marbles taught him percussion; bottle-  
screws, the *vice*; whirligigs, the axis in peritrochio.  
*Arbutnot on Pope.*

**VICER**, in smithery and other arts conversant in



metals, a machine or instrument serving to hold fast any thing they are at work upon, whether it is to be beaten, filed, or rivetted.

**Vice**, in ethics, is ordinarily defined an elective habit, denoting either an excess or defect from the just medium wherein virtue is placed.

**Vice** is also used in the composition of divers words to denote the relation of something that comes instead or in the place of another; as vice-admiral, vice-chancellor, &c., are officers who take place in the absence of admirals, &c.

**VICEAD'MIRAL, n. s.}** Lat. *vice* (very com-  
**VICEAD'MIRALTY.** } monly used in com-  
position for one *qui vicem gerit* who performs in his stead the office of a superior) and *admiral*. The second commander of a fleet: the station or office of a viceadmiral.

The foremost of the fleet was the admiral; the rear-admiral was Cara Mahometes, an arch pirate. The viceadmiral in the middle of the fleet, with a great squadron of galleys, struck sail directly. *Knolles*.

The viceadmiralty is exercised by Mr. Trevanion. *Carew*.

**VICEAG'ENT, n. s.** Vice and agent. One who acts in the place of another.

A vassal Satan hath made his *viceagent*, to cross whatever the faithful ought to do. *Hooker*.

**VICEGER'ENT, n. s.}** Latin *vicem gerens*.  
**VICEGER'ENCY.** } A lieutenant; one who is intrusted with the power of the superior, by whom he is deputed: his quality, station, or office.

Whom send I to judge thee? Whom but thee, *Vicerent* Son! To thee I have transferred  
All judgment, whether in heaven, or earth, or hell. *Milton*.

Employ it in unfeigned piety towards God, in unshaken duty to his *vicegerent*; in hearty obedience to his church. *Sprat*.

The authority of conscience stands founded upon its *vicegerency* and deputation under God. *South*.

**VICENZA**, a town and province of Austrian Italy, in the government of Venice. It is a fertile and well cultivated country, containing, on a superficial extent of less than 1000 square miles, above 310,000 inhabitants. The capital has 25,000 inhabitants.

**VICEROY, n. s.}** French *viceroi*. He who  
**VICEROY'ALTY.** } governs in place of a king with regal authority: the office of a viceroy.

Shall I, for lucre of the rest unvanquished,  
Deduct so much from that prerogative,  
As to be called but *viceroi* of the whole? *Shakespeare*.

These parts furnish our *viceroialties* for the grantees; but in war are incumbrances to the kingdom. *Addison*.

**VIC'ETY, n. s.** A nice thing, says Johnson, is called in vulgar language point vice, from the Fr. *point devise*, or *point de vice*; whence the barbarous word *vicety* may be derived. *Nicety*; exactness. A word not used.

Here is the fruit of Pem,  
Grafted upon Stab his stem;  
With the peakish *nicety*,  
And old Sherewood's *vicety*. *Ben Jonson*.

**VICIA**, in botany, a genus of plants of the class diadelphia, and order of decandria; natural order thirty-second, papilionaceæ. The stigma is bearded transversely on the lower side. There are twenty species, seven of which are natives of Britain. The most important of these are, 1. *V. cracca*, tufted vetch. It has a stem branched, three or four feet long. Leaves pinnated; pinnæ generally ten

or twelve pair, lance-shaped, downy. *Stipulæ* entire. Flowers purple, numerous, pendulous, in imbricated spikes. It is also reckoned an excellent fodder for cattle. 2. *V. faba*, or common garden bean. It is a native of Egypt. It is too well known to require description. 3. *V. sativa*, common vetch, or tare. The stalks are round, weak, branched, about two feet long. Pinnæ five or seven pair, a little hairy, notched at the end. *Stipulæ* dentated. Flowers light and dark purple, on short pedicles, generally two together; pods erect; seeds black. It is known to be an excellent fodder for horses.

**VIC'INAL, adj.}** Lat. *vicinus*. Near; neigh-  
**VIC'INE,** }  
**VICIN'ITY, n. s.}** bouring: state of being near.

The position of things is such, that there is a *vicinity* between agents and patients, that the one incessantly invades the other. *Hale*.

Opening other *vicine* passages might obliterate any attack; as the making of one hole in the yielding mud defaces the print of another near it. *Glanville*.

Gravity alone must have carried them downwards to the vicinity of the sun. *Bentley*.

The abundance and vicinity of country seats. *Swift*.

**VICIS'SITUDE, n. s.** Lat. *vicissitudo*. Regular change; return of the same things in the same succession; revolution.

It makes through heaven  
Grateful *vicissitude*, like day and night. *Milton*.

The rays of light are alternately disposed to be reflected or refracted for many *vicissitudes*. *Newton*.

During the course of the war, did the *vicissitudes* of good and bad fortune affect us with humility or thankfulness. *Atterbury*.

**VICTIM, n. s.** Lat. *victima*. A sacrifice; something slain for a sacrifice; something destroyed.

All that were authors of so black a deed,  
Be sacrificed as *victims* to his ghost. *Denham*.

Clitumnus' waves, for triumphs after war,  
The *victim* ox, and snowy sheep prepare. *Addison*.

Behold where age's wretched *victim* lies!  
See his head trembling, and his half-closed eyes. *Prior*.

**VICTOR, n. s.}** Lat. *victor*. Conqueror;  
**VICTO'RIOUS, adj.}** vanquisher; he that gains  
**VICTO'RIOUSLY, adv.}** advantage in any contest.  
**VICT'ORY, n. s.}** Seldom used with a genitive; we say the conqueror  
**VICT'RESS.** } of kingdoms, not the *victor* of kingdoms; and never but with regard to some single action or person: as we never say, Cæsar was in general a great victor, but that he was victor at Pharsalia: the adjective and adverb correspond: a victory is a conquest; triumph; success in battle: *victress*, a female conqueror.

Although the *victor*, we submit to Cæsar. *Shakespeare*.

Now are our brows bound with *victorious* wreaths;  
Our bruised arms hung up for monuments. *Id.*

I'll lead thy daughter to a conqueror's bed;  
And she shall be sole *victress*; Cæsar's Cæsar. *Id.*  
Victory doth more often fall by error of the vanquished, than by the valour of the *victorious*. *Hayward*.

That grace will carry us, if we do not wilfully betray our succours, *victoriously* through all difficulties. *Hammon*.

Their hearts at last the vanquished re-assume,  
And now the *victors* fall. *Denham*.

Then to the heaven of heavens he shall ascend,  
With *victory*, triumphing o'er his foes. *Milton*.

Say where and when  
Their fight; what stroke shall bruise the victor's heel.  
*Id.*

In love, the victors from the vanquished fly,  
They fly that wound, and they pursue that die.  
*Waller.*

Lose not a thought on me, I'm out of danger;  
Heaven will not leave me in the victor's hand. *Addison.*  
Sudden these honors shall be snatched away,  
And curst for ever this victorious day. *Pope.*

VICTORINA, a matron, who led the Roman armies against the emperor Gallienus. See *ROME*.  
VICTORINUS. See *STRIGELIUS*.

VICTORIUS (Benedict), physician, was born at Faenza, about 1481. He was professor at Bologna, and died about 1560. He wrote *De Morbo Gallico*, 8vo., and some other works.

VICTORIUS (Lionel), a medical professor at Bologna; wrote on *Infantile Diseases*, 8vo.; and died 1520.

VICTORIUS (Peter), a commentator on the ancients, was born at Florence, 1499, where he was professor of rhetoric, and member of the senate. He died 1585.

VICTORY, in mythology, is represented by Hesiod as the daughter of Styx and Pallas; and Varro calls her the daughter of heaven and earth. The Romans erected a temple to her, where they prayed for success to their arms. They painted her in the form of a woman clad in cloth of gold. In some medals she is represented flying in the air, holding a laurel crown in one hand, and a palm in the other; but in others she stands on a globe.

VICTUAL, *n. s.* & *Fr. victuailles*; barb. Lat. *VICTUALS*, [*v. a.*] *victulus*, of Lat. *vitalis*. *Pro-*  
*VICTUALLER*. } vision of food; stores for the support of life; meat; sustenance: to victual is to store with provisions: victualler, one who provides them.

He was not able to keep that place three days for lack of victuals. *Knolles.*

A huge great sagon full I bore,  
And, in a good large knapsack, victles store.

They planted their artillery against the haven, to impeach supply of victuals; yet the English victuallers succeeded not to bring all things necessary. *Hayward.*

He landed in these islands, to furnish himself with victuals and fresh water. *Abbot.*

VIDA, the ancient name of Cremona.

VIDA (Mark Jerome), bishop of Alva, in Montserrat, and one of the most excellent Latin poets that have appeared since the Augustine age, was born at Cremona in 1470. He was made bishop of Alva in 1552. He wrote hymns, eclogues and poems, in Latin; and in prose, dialogues, synodical constitutions, letters, and other pieces. He died in 1566, soon after his being made bishop of Cremona. The best edition of his poems is that of Oxford, 3 vols. 8vo.

VIE, *v. a. & v. n.* *Fr. vier*. To show or practise in competition; rival: contest; strive for superiority.

She hung about my neck, and kiss and kiss  
She vied so fast,  
That in a twink she won me to her love. *Shakspeare.*

They vie power and expence with those that are too high. *L'Esrange.*

The wool, when shaded with Ancona's dye,  
May with the proudest Tyrian purple vie. *Addison.*

Now voices over voices rise;  
While each to be the loudest vies. *Swift.*

VIENNA, Germ. *Wien*, the capital of the Austrian empire, is situated in the province of Lower Austria, on the right bank of the Danube, which is here slow and majestic in its course, forming a number of islands and windings. It is joined by the Wien and Alser, two streams, small but rapid, which flow through the town. Vienna is subject to occasional inundations from each of these rivers.

The city, or original part, forms a town distinct from the suburbs, of a circular shape, hardly a mile in any direction, and not above three miles in circuit. Between it and the suburbs is an open space, also circular, and of the width of somewhat more than half a mile, the computed range of cannon in a remote age. The suburbs, consisting formerly of a succession of scattered villages, are now so connected as to form a continuous whole, surrounded on the outside by a wall which embraces a circuit of no less than twelve miles. The ramparts have long been used for public walks.

The houses of the city in general built of brick, slated, and most of the streets are paved with yennite, a little raised above the causeway. In the suburbs the houses are not so high, the streets are wider, and many of the buildings good. In general the best houses are those which front the city. Some of the streets here are not paved: but are all well lighted at night; and in the city there are large subterranean sewers, which discharge themselves into the Danube. Vienna has eight small and irregular squares. The best is that called *Am Hof*, on account of its vicinity to the court. The *Graben* is rather a wide street than a square, and stands nearly in the centre of the city. The *Joseph Platz* contains a good equestrian statue of the emperor Joseph II., and has various good buildings.

At the western extremity is situated the imperial palace, a square edifice of vast extent; but, having been built at different periods, the appearance of the exterior is very irregular. The interior is highly interesting, on account of the valuable collections which it contains. The riding academy here is said to be one of the largest in Europe; but it is surpassed by an assembly-room called the hall of Apollo, which is capable of containing 10,000 people. The *Belvidere*, a palace built by prince Eugene, is in one of the suburbs. The imperial mews are capable of containing more than 400 horses; the arsenal has an immense collection of arms, and many curious ornaments, of iron. All these edifices belong either to government or the imperial family.

Of the churches the whole number is twenty-nine, besides fourteen monasteries, and three convents. The ancient Gothic cathedral is dedicated to St. Stephen, and dates from 1270. The interior is elegant and simple, containing several fine monuments, particularly that erected to prince Eugene. Its tower is of enormous height. The church of St. Peter is in the Italian style. In that of the Augustinians, the ceremonies connected with the imperial family are performed; and it contains perhaps the most interesting monument in Vienna—that erected to the archduchess Maria Christina, by her husband, considered a master-piece of Canova's.

The great hospital, equal in extent to any in Paris or London, receives often 10,000 patients in the course of a year: there are separate hospitals for soldiers, Jews, foundlings, orphans, and aged persons. Several of these charitable establishments



are served by nuns. The lying-in hospitals are also on a liberal plan, and under good management.

Vienna has manufactures of silks, ribbons, gloves, lace, paper, earthen-ware, instruments, philosophical and musical; maps, engravings, coaches, and carriages in general. In these, and a variety of other branches, a transfer of manufacture would be made to towns of greater salubrity and cheaper labor, did the country possess canal carriage, or even good roads. Those leading to Vienna are few compared to the approaches of London or Paris.

Vienna is the emporium of all the commerce of the Austrian states; the place for exchange operations, for extensive sales and purchases, for loans and contracts; in short, it is the London of Austria, without any thing like an equal repartition of business to provincial towns. Yet the number of wholesale mercantile houses hardly exceeds 200. There is here an exchange, a bank chartered so lately as 1817, and an establishment on the plan of the Lombard or pawn bank of Hamburg and other continental cities.

The university dates from 1237, and was under the management of the Jesuits, till the celebrated Von Swieten prevailed on the court, in the middle of the eighteenth century, to take it out of their hands. A botanical garden was now established; medical men were sent to the most celebrated seminaries in Europe, to observe the state of the science; a military hospital and an anatomical theatre were founded; and at a subsequent date a veterinary school. In consequence Vienna is by far the first medical school in Germany. The university of Vienna also has public classes for philosophy, classical languages, literature, law, theology, without, however, surpassing in these departments the seminaries of Gottingen, Leipsic, and Halle. The total number of professors is fifty-four; that of assistants eighteen. Vienna has likewise a seminary for the oriental languages, an academy of fine arts, and an institution formed in 1770 for the reception of specimens of manufacture. Greek literature is also cultivated here: books are printed in Romaic, and a correspondence kept up with several schools in Greece. The military institutions are a school of cadets; and, since 1816, a polytechnic school for engineers, civil and military. Vienna contains five schools or seminaries for training teachers for provincial towns and villages.

The imperial library is very extensive; and is said to consist of 12,000 MSS., and 300,000 printed volumes. Next to this comes the library of the university, computed at 90,000 volumes; the imperial collection of medals and coins is reckoned the most complete in Europe.

The principal amusements of the people are the public walks and theatres. Of the latter, there are no less than five; two in the city, which belong to the court, and three in the suburbs; but all below mediocrity. The public walks are much better calculated to afford gratification. The Prater is an immense park on the east side of the town, belonging to the court, but thrown open to the public. A number of slightly built coffee-houses are erected along the walks; and parties are formed on the grass for taking coffee. The Augarten is another place of public resort to the north of the Prater, and separated from it only by an iron-railing. The Brigitten-Au is another agreeable walk; but both are much less frequented than the Prater.

Corn, meat, and wine, are supplied in a great

measure from Hungary; vegetables from the district around the capital. For fuel, the inhabitants use partly wood, partly coals and turf. The water drank in Vienna is not in general good; and is often found to disagree with strangers. Nor is the climate equally healthy with that of London or Paris. It is extremely variable, intense heat being not unfrequently followed by piercing cold. The population has been progressive for a century past; and the total number at present is not below 270,000.

Under the name of Vindobona, Vienna was long the head quarters of a Roman legion, and afterwards fell successively into the hands of the Goths and Huns. In 791 Charlemagne attached it to his dominions: at that time, and for more than two centuries after, it was of inconsiderable extent; the church of St. Stephen, which is now nearly in its centre, having been erected in 1144, outside of the walls. The town continued, however, to increase. The most remarkable incidents in its history are its capture in 1484 by the Hungarians, under their king Mathias, who resided in it till his death. In 1529 the Turks, supported by Hungarian insurgents, ventured to approach this capital, and destroyed the suburbs. In 1619 the insurgents, supported by a party in Austria, succeeded in penetrating into the city; but a different result took place on an attempt made in 1625 by Torsenson, a Swedish general, commanding a mixed army of his countrymen and of German Protestants. The attack most generally known to the readers of history was that of 1683, made by a Turkish army, supported by disaffected chiefs in Hungary, but repulsed under the governor of Sobieski. In 1741, though pressed by the Bavarians on the west, and the French and Prussians on the north, Vienna was preserved; and an increase of the army, with financial supplies from England, soon changed the aspect of affairs. In the present age it was threatened by Buonaparte in 1797, and occupied by him in 1805 and 1809. On both occasions proper discipline was observed by the invaders, and little injury done. Vienna suffered from the ravages of the plague, first in 1679, and afterwards in 1713. 630 miles east of Paris, and 896 south-east of London.

VIENNE, a river of France, which rises in the Limousin, and, flowing northward, joins the Loire, in the department of the Indre and Loire, two miles above Saumur. It gives name to two departments, and is navigable at some distance above its influx into the Loire.

VIENNE, a department of France, formed of the ancient province of Upper Poitou, and bounded on the north by the department of the Indre and Loire, on the south by that of the Charente. It has a superficial extent of 2800 square miles, and a population of 252,000, all Catholics, with the exception of about 13,000 Protestants. The surface is for the most part level. The principal rivers are the Vienne, the Charente, the Dive, the Clain, and the Creuse. The principal productions are corn, pulse, potatoes, hemp, flax, and wine. Agriculture is very backward.

VIENNE, UPPER, a department in the west of France, including the greatest part of the Limousin, and traversed by the river Vienne, which flows northward to the Loire. It has a superficial extent of 2230 square miles, and a population of 240,000. This department is mountainous, produces comparatively little corn, but has extensive pasturages



in which are reared quantities of horses, oxen, asses, and mules. Its forests are extensive, its game abundant. Its mineral products are marble, mines of coal, iron, lead, and antimony. The department is divided into the four arrondissements of Limoges (the capital), Bella, Roche-chouart, and St. Yriex. Limoges is the seat of a bishop, and of a provincial court of the first class.

VIENNE, a town in the south-east of France, on the right bank of the Rhone, eighteen miles south of Lyons; contains several public buildings, a cathedral, which is a fine Gothic edifice, erected on an eminence, and two good churches. The population is about 10,300; the manufactures, woollen, linen, hard-ware, leather, and colored paper. Vienne has various antiquities, among which are a square building, similar to that at Nîmes, and supposed to have been a Roman temple; a pedestal and entablature, surmounted by a pyramidal top, probably the tomb of some distinguished Roman. There are here also the remains of a theatre and amphitheatre, and several traces of aqueducts; arcades supposed to have belonged to a triumphal arch; and, on the opposite bank of the Rhone, the piles of an ancient Roman bridge. It is mentioned by Cæsar as a place of consequence.

VIETA (Francis), a mathematician, born at Fontenay in 1540. He was the first who used letters in algebra to designate known quantities. He also made corrections on the calendar, and improvements in geometry. He died in 1603. His works were published, Paris, 1646, 1 vol. folio.

VIEW, *v.a. & n.s.* } *Fr. voir* from *voir*, or  
VIEWLESS, *adj.* } *voir*. To survey; examine; perceive by the eye: a prospect; survey; examination by the eye; appearance; act or power of seeing; sight; mental survey; intention; design; hope: viewless is unseen, undiscernible.

Go, and view the country. *Joshua.*  
To be imprisoned in the viewless winds,  
And blown with restless violence about  
The pendant world. *Shakspeare.*

Vast and indefinite views, which drown all apprehensions of the uttermost objects, are condemned by good authors. *Wotton.*

Each stair mysteriously was meant, nor stood  
There always, but drawn up to heaven sometimes  
Viewless. *Milton.*

They here with eyes aghast  
Viewed first their lamentable lot. *Id.*

Some safer resolution I've in view. *Id.*

The walls of Pluto's palace are in view. *Dryden.*

Time never will renew,  
While we too far the pleasing path pursue,  
Surveying nature with too nice a view. *Id.*

With a view to commerce, in returning from his expedition against the Parthians, he passed through Egypt. *Arbuthnot.*

Fisher, the Jesuit, in the year 1626, seconded the cardinal in the same plea, and upon the same views. *Waterland.*

Cut wide views through mountain to the plain,  
You'll wish your hill a sheltered hill again. *Pope.*

Whene'er we view some well-proportioned dome,  
No single parts unequally surprize;  
All come united to the admiring eyes. *Id.*

Light-bounding from the earth, at once they rise;  
Their feet half viewless quiver in the skies. *Id.*

VIG'IL, *n. s.* } *Lat. vigilia.* Watch; de-  
VIG'ILANCE, } votions performed in the  
VIG'ILANCY, } customary hours of rest; a  
VIG'ILANT, *adj.* } fast or religious service be-  
VIG'ILANTLY, *adv.* } fore a holiday: vigilance is

forbearance of sleep; watchfulness; guard; circumspect care: the adverb corresponding.

He that outlives this day, and sees old age,  
Will yearly on the vigil feast his neighbours,  
And say, to-morrow is St. Crispian. *Shakspeare.*

No post is free, no place,  
That guard and most unusual vigilance  
Does not attend my taking. *Id.*

Thus, in peace, either of the kings so vigilantly observed every motion of the others, as if they had lived upon the alarm. *Hayward.*

In this their military care, there were few remarkable occasions under the duke, saving his continual vigilancy, and voluntary hazard of his person. *Wotton.*

So they in heaven their odes and vigils tuned. *Milton.*

Though Venus and her son should spare  
Her rebel heart, and never teach her care;  
Yet Hymen may perforce her vigils keep,  
And for another's joy suspend her sleep. *Waller.*

Shrines! where their vigils pale-eyed virgins keep,  
And pitying saints, whose statues learn to weep. *Pope.*

And that which on the Baptist's vigil sends  
To nymphs and swains the vision of their friends. *Harte.*

VIGIL, in church history, is the eve or next day before any solemn feast; because then Christians were wont to watch, fast, and pray, in their churches.

VIGILS OF PLANTS, a term under which some botanists comprehend the precise time of the day in which the flowers of different plants open, expand, and shut. A flower which opens in Senegal at six will not open at the same season in France and England till eight or nine, nor in Sweden till ten. Linné distinguishes by the general name of solar (flores solares), all those flowers which observe a determinate time in opening and shutting. These flowers are again divided from certain circumstances, into three species, or kinds: 1. Equinoctial flowers (flores equinoctiales) are such as open and shut, at all seasons, at a certain fixed or determinate hour. 2. Tropical flowers (flores tropici) are such whose hour of opening is not fixed at all seasons, but accelerated or retarded according as the length of the day is increased or diminished. 3. Meteorous flowers (flores meteorici) are such whose hour of expansion depends upon the dry or humid state of the air, and the greater or less pressure of the atmosphere. Of this kind is the Siberian sow thistle, which shuts at night if the ensuing day is to be clear and serene, and opens if it is to be cloudy and rainy. In like manner the African marigold, which in dry serene weather opens at six or seven in the morning, and shuts at four o'clock in the afternoon, is a sure indication that rain will fall during the course of the day, when it continues shut after seven.

VIGILIUS, an African prelate, and polemical writer, who flourished about A. D. 484. His works were printed at Dijon, 1665, 4to.

VIGNOLE (James Baroggio), architect, was born at Vignola, in 1507. He died at Rome, 1573. He wrote a treatise on the five orders of architecture, 3 vols. 4to.

VIG'OR, *n. s.* } *Latin vigor.* Force;  
VIG'OROUS, *adj.* } strength; energy; mental  
VIG'OROUSLY, *adv.* } force; the adjective, ad-  
VIG'OROUSNESS, *n. s.* } verb, and noun substantive  
following correspond.

He hath given excellent sufferance and vigorousness to the sufferers, arming them with strange courage,



heroical fortitude, invincible resolution, and glorious patience.

Pernicious fire withered all their strength,  
And of their wonted *vigour* left them drained. *Milton.*

Famed for his valour young;  
At sea successful, *vigorous*, and strong! *Waller.*

The *vigour* of this arm was never vain:  
Witness these heaps of slaughter. *Dryden.*

Though the beginnings of confederacies have been  
always *vigorous* and successful, their progress has been  
generally feeble, and event unfortunate. *Davenant.*

If the fire burns bright and *vigorously*, it is no matter  
by what means it was at first kindled. *South.*

Their appetite is not dulled by being gratified, but re-  
turns always fresh and *vigorous*. *Atterbury.*

VILE, *adj.* } Fr. *vil*; Lat. *vilis*. Base;  
VILED, *adj.* } mean; worthless; despicable;  
VILELY, *adv.* } sordid; viled, abusive; defama-  
VILENESS, *n. s.* } tory: vilely, basely; meanly:  
VILIFY, *v. a.* } the noun substantive cor-  
responding: to vilify is to debase; degrade; defame.

Our case were miserable, if that wherewith we most  
endeavour to please God were in his sight so *vile* and  
despicable as men's disdainful speech would make it.

*Hooker.*

I disdaining scorned, and craved death,  
Rather than I would be so *vile* esteemed. *Shakspeare.*

The Volscians *vilely* yielded the town. *Id.*

He granted life to all except one, who had used *viled*  
speeches against king Edward. *Hayward.*

Tomalin could not abide  
To hear his sovereign *vilified*. *Drayton.*

That sinful creature man elected is,  
And in our place the heavens possess he must;  
*Vile* man, begot of clay, and born of dust. *Fairfax.*

Reflect on the essential *vileness* of matter, and its im-  
potence to conserve its own being. *Creech.*

Restored by thee, *vile* as I am, to place  
Of new acceptance. *Milton.*

Considering the *vileness* of the clay, I wondered that  
no tribune of that age durst ever venture to ask the  
potter, What dost thou make? *Swift.*

How can I

Forget my Hector, treated with dishonour,  
Deprived of funeral rites, and *vilely* dragged,  
A bloody corse, about the walls of Troy. *A. Philips.*

The displeasure of their friend those may expect who  
would put in practice all methods to *vilify* his person.

*Addison.*

VILKENS (James Albert), divine and naturalist,  
was born at Wierum, near Groningen, in 1772, and  
was passed through his academical studies at Gronin-  
gen with reputation. In 1795 he took the degree  
of M. D. On proceeding doctor in philosophy, he  
supported an ingenious thesis On the Nature of  
the Atmosphere; and afterwards produced an  
Elementary Treatise on Physics, for which he ob-  
tained the prize offered by a learned society. This  
work became very popular. His Discourse on the  
Perfections of the Creator considered in the Crea-  
ture, 4 vols. 8vo., is another valuable piece, as also  
are his Memoir on the Utility of Insects; and his  
Manual of Technology. In 1815 he was chosen to  
the newly established chair of Rural Economy at  
Groningen, and in 1819 published a treatise on  
that subject. He died in 1825, having written se-  
veral other works.

VILL, *n. s.* Fr. *ville*; Lat. *villa*. A village; a  
small collection of houses. Little in use.

This book gives an account of the manureable lands  
in every manor, town, or *vill*. *Hale.*

VILLA, *n. s.* Lat. *villa*. A country seat.

The antient Romans lay the foundations of their  
*villas* and palaces within the borders of the sea. *Addison.*

All vast possessions; just the same the case,  
Whether you call them *villa*, park, or chace. *Pope.*

At six hours distance from Bizantium's walls,  
Where Bosphorus into the Euxine falls,  
In a gay district, called the Elysian vale,  
A furnished *villa* stands, proposed for sale. *Harte.*

VILLA FRANCA, an old town on the southern  
coast of the island of St. Michael, one of the Azores.  
It is founded on lava, and partly destroyed by  
earthquakes; prior to which it was the principal  
town of the Azores. It now contains only 2000  
inhabitants; and the commerce has been transferr-  
ed to Ponte del Jada.

VILLA FRANCA, a town of Italy, in Piedmont,  
the resort of consumptive invalids. It has a spaci-  
ous and secure harbour, and a dock for the royal  
galleys. Its trade, however, is limited. Popula-  
tion 2200. Two miles east of Nice.

VILLA FRANCA, another town of Piedmont, con-  
tains nearly 7000 inhabitants, and is situated in a  
fertile plain on the banks of the Po. Twenty  
miles south by west of Turin.

VILLA REAL, a town of Spain, in Valencia, on  
the Mijares, near the Mediterranean. It has 7000  
inhabitants, who manufacture woollens and silks.  
The vicinity is favorable to the culture of the vine  
and mulberry tree. Thirty-five miles north by  
east of Valencia, and twenty east of Segorbe.

VILLA RICA, a town of Brasil, the capital of the  
province of Minas Geraes, is situated on the side  
of a large mountain. Most of the streets range in  
steps, as it were, from the base to the summit, and  
are crossed by others which lead up the acclivity.  
The town is divided into two parishes, and con-  
tains about 20,000 inhabitants, white and black.  
The climate is delightful. The greatest heats pre-  
vail in January: thunder storms are common, but  
by no means violent, and the sun is sometimes  
clouded by dews and mist, so dense as not to sub-  
side until the forenoon is far advanced. As there  
is scarcely a piece of level ground, even ten yards  
square, on the whole side of the mountain, the de-  
fect has been remedied by cutting spaces one above  
another at regular distances, and supporting them  
by low walls, the top of one being on a level with  
the base of that next above it. An easy flight of  
steps leads from one to the other. These terraces  
are covered with a profusion of the most delicate  
flowers. The market of Villa Rica was, according  
to Mr. Mawe, but ill provided; pulse and vege-  
tables for the table were scarce: even grass was an  
article in great demand, and milk was as dear as  
in London. Poultry sold at from 3s. 6d. to 4s. 6d.  
per couple. Beef of a tolerable kind, but by no  
means good, might be had at 1½d. per pound. Pork  
was very fine. Tallow was exceedingly dear; but  
English manufactures were in abundance. It owes  
its origin to the rage for discovering gold mines;  
and at present is much declined from its former  
consequence.

VIL'LAGÉ, *n. s.* } Fr. *village*. A small col-  
VIL'LAGER, } lection of houses in the coun-  
VIL'LAGEY, } try, less than a town: an  
VILLAT'IC, *adj.* } inhabitant of a village: a  
district or collection of villages: villatic is belong-  
ing to villages.

The country *villages* were burnt down to the ground.  
*Knolles.*

The early *village* cock  
Hath twice done salutation to the morn. *Shakspeare*



Brutus had rather be a *villager*,  
Than to repute himself a son of Rome  
Under such hard conditions. *Id.*

Robin Goodfellow, are you not he  
That fright the maidens of the *villagery*? *Id.*

When once her eye  
Hath met the virtue of this magic dust,  
I shall appear some harmless *villager*;  
Whom thrift keeps up about his country gear. *Milton.*

Next in order ranged  
Of tame *villatic* fowl. *Id.*

If there are conveniences of life, which common use  
reaches not, it is not reason to reject them because  
every *villager* doth not know them. *Locke.*

|                           |   |
|---------------------------|---|
| VIL'LAIN, <i>n. s.</i>    | } Fr. <i>villain</i> ; low Lat. <i>villanus</i> . One who held by a base tenure: hence, in modern times, a low man from whatever cause; a wicked wretch: villanage, the state or tenure of a villain; servitude; baseness; infamy: villanize, to debase; degrade; defame: villanous, base; vile; sorry; wicked: the adverb following corresponds: villany is wickedness; baseness; a wicked action. |
| VIL'LANAGE,               |   |
| VIL'LANIZE, <i>v. a.</i>  |   |
| VIL'LANOUS, <i>adj.</i>   |   |
| VIL'LANOUSLY, <i>adv.</i> |   |
| VIL'LANTY, <i>n. s.</i>   |   |

We were prevented by a dozen armed knights, or rather *villains*, who, using this time of their extreme feebleness, all together set upon them. *Sidney.*

They exercise most bitter tyranny  
Upon the parts brought into their bondage:  
No wretchedness is like to sinful *villanage*. *Spenser.*

O villain! villain! his very opinion in the letter. A-  
horred villain! unnatural, detested, brutish villain!  
*Shakspeare.*

We shall lose our time,  
And all be turned to barnacles or apes,  
With foreheads *villanous* low. *Id.*

The Irish inhabiting the lands fully conquered, being in condition of slaves and *villains*, did render a greater revenue than if they had been made the king's free subjects. *Davies.*

Upon every such surrender and grant there was but one freeholder, which was the lord himself; all the rest were but tenants in *villanage*, and were not fit to be sworn in juries. *Id.*

Such *villanies* roused Horace into wrath;  
And 'tis more noble to pursue his path  
Than an old tale. *Dryden.*

No *villany*, no flagitious action, was ever yet committed, but a lie was first or last the principal engine to effect it. *South.*

Calm thinking *villains*, whom no faith could fix;  
Of crooked counsels and dark politicks. *Pope.*

VILLAIN, or VILLEIN, in our ancient customs, denotes a man of servile or base condition, viz. a bond-man or servant.

VILLALPANDUS (John Baptist), Jesuit, who died in 1608. He wrote a comment on Ezekiel, 3 vols. folio, 1596, and an Exposition of St. Paul's Epistles.

VILLARET (Claude), born at Paris 1715. He was first an actor, then became an author. He continued Volley's History of France, and wrote a treatise on Acting, and a tract On the Mind of Voltaire. He died in 1766.

VILLARS (Lewis Hector), peer and marshal of France, and grandee of Spain, was born at Moulins in 1653. After distinguishing himself on various occasions in the army, he was made marshal-de-camp in 1690, and was sent against Marlborough, but was defeated at Malplaquet, and dangerously wounded. He was appointed plenipotentiary for concluding a peace at Rastadt in 1714.

In 1733 he was sent into Italy, where he took Pisighitone, and died at Turin 1734.

VILLENAGE, in law. The folk-land, or estates held in villanage, was a species of tenure not strictly feudal, Norman, or Saxon; but mixed and compounded of them all; and which also, on account of the heriots that usually attend it, may seem to have somewhat Danish in its composition. Under the Saxon government there were, as Sir William Temple speaks, a sort of people in a condition of downright servitude, used and employed in the most servile works, and belonging, both they, their children, and effects, to the lord of the soil, like the rest of the cattle or stock upon it. These seem to have been those who held what was called the folk-land, from which they were removeable at the lord's pleasure. On the arrival of the Normans here, it seems not improbable, that they, who were strangers to any other than a feudal state, might give some sparks of enfranchisement to such wretched persons as fell to their share, by admitting them, as well as others, to the oath of fealty; which conferred a right of protection, and raised the tenant to a kind of estate superior to downright slavery, but inferior to every other condition. This they called villanage, and the tenants villeins. These villeins, belonging principally to the lords of manors, were either villeins regardant, that is, annexed to the manor or land; or else they were in gross, or at large, that is, annexed to the person of the lord, and transferable by deed from one owner to another. They could not leave their lord without his permission; but if they ran away, or were purloined from him, might be claimed and recovered by action, like beasts or other chattels. They held indeed small portions of land by way of sustaining themselves and families; but it was at the mere will of the lord, who might dispossess them whenever he pleased; and it was upon villein services, that is to carry out dung, to hedge and ditch the lord's demesnes, and any other the meanest offices: and their services were not only base but uncertain both as to their time and quantity. A villein could acquire no property, either in lands or goods; if he purchased either, the lord might seize them to his own use; unless he contrived to dispose of them again before the lord had seized them. In many places also a fine was payable to the lord, if the villein presumed to marry his daughter to any one without leave from the lord, and, by the common law, the lord might also bring an action against the husband for damages for thus purloining his property. For the children of villeins were also in the same state of bondage with their parents; whence they were called in Latin *nativi*, which gave rise to the female appellation of a villein, who was called a *neife*. In case of a marriage between a freeman and a *neife*, or a villein and a free woman, the issue followed the condition of the father, being free if he was free, and villein if he was villein; contrary to the maxim of the civil law, that *partus sequitur ventrem*. But no bastard could be born a villein, because by another maxim of our law he is *nullius filius*; and as he can gain nothing by inheritance, it were hard that he should lose his natural freedom by it. The law, however, protected the persons of villeins against atrocious injuries of the lord: for he might not kill or maim his villein; though he might beat him with impunity. Villeins might be enfranchised by manumission. In process of time they gained



considerable ground on their lords; and in particular strengthened the tenure of their estates to that degree that they came to have in them an interest in many places full as good, in others better than their lords. For the good-nature and benevolence of many lords of manors having, time out of mind, permitted their villeins and their children to enjoy their possessions without interruption, in a regular course of descent, the common law, of which custom is the life, now gave them title to prescribe against their lords; and, on performance of the same services, to hold their lands, in spite of any determination of the lord's will. For though in general they are still said to hold their estates at the will of the lord, yet it is such a will as is agreeable to the custom of the manor; which customs are preserved and evidenced by the rolls of the several courts baron in which they are entered, or kept on foot by the constant immemorial usage of the several manors in which the lands lie. And as such tenants had nothing to show for their estates but these customs, and admissions in pursuance of them entered on these rolls, or the copies of such entries witnessed by the steward, they now began to be called tenants by copy of court roll, and their tenure itself a copyhold.

**VILLENAGE, PRIVILEGED**, a species of tenure otherwise called villein socage. See **TENURE**. Ancient demesne consists of those lands or manors which, though now perhaps granted out to private subjects, were actually in the hands of the crown in the time of Edward the Confessor or William the Conqueror, and so appear to have been, by the great survey in the exchequer, called doomsday book. The tenants of these lands, under the crown, were not all of the same order or degree. Some of them, as Britton testifies, continued for a long time pure and absolute villeins, dependent on the will of the lord; and common copyholders in only a few points. Others were in a great measure enfranchised by the royal favor; being only bound in respect of their lands to perform some of the better sort of villein services; but those determinate and certain; as, to plough the king's land for so many days, to supply his court with such a quantity of provisions, and the like; all of which are now changed into pecuniary rents; and in consideration hereof they had many immunities and privileges granted to them; as, to try the right of their property in a peculiar court of their own, called a court of ancient demesne, by a peculiar process denominated a writ of right close; not to pay toll or taxes; not to contribute to the expenses of knights of the shire; not to be put on juries, and the like. These tenants, therefore, though their tenure be absolutely copyhold, yet have an interest equivalent to a freehold: for though their services were of a base and villein original, yet the tenants were esteemed in all other respects to be highly privileged villeins; and especially for that their services were fixed and determinate, and that they could not be compelled (like pure villeins) to relinquish those tenements at the lord's will, or to hold them against their own: *et ideo* (says Bracton) *dicuntur liberi*. Lands holding by this tenure are therefore a species of copyhold, and as such preserved and exempted from the operation of the statute of Charles II. Yet they differ from common copyholds, principally in the privileges before mentioned: as also they differ from freeholders by one especial mark and tincture of

villanage, noted by Bracton, and remaining to this day, viz. that they cannot be conveyed from man to man by the general common law conveyances of feoffment, and the rest; but must pass by surrender to the lord or his steward, in the manner of common copyholds; yet with this difference, that, in the surrenders of these lands in ancient demesne, it is not used to say, 'to hold at the will of their lord,' in their copies; but only, 'to hold according to the custom of the manor.'

**VILLENEUVE** (Gabrielle Susannah Barbot, De), novel writer, was the widow of a French lieutenant-colonel. Her novels are numerous. She died in 1755.

**VILLERS** (Charles François Dominique de), a modern French writer, was a native of Belchen in Lorraine, where he was born 1764. In the earlier part of his life he served as a lieutenant of artillery, but on the breaking out of the revolution emigrated, and joined the Royalist force under the prince de Condé. After this he retired to Lubeck, and devoted himself to literary pursuits. Villers obtained the prize given by the institute for an Essay on the Influence of the Reformation; and was at length invited to fill the professor's chair in philosophy at Gottingen. This situation, when the French influence predominated, he was compelled to resign, but received a pension. During the occupation of Hanover by the troops of that nation, under Davoust, the excesses committed by the soldiery induced him to address a letter to Fanny Beauharnois, with the hope of procuring, through her interest, some mitigation of these evils; but the only effect was to draw on its author the personal hatred of the French commander. He also addressed to the Institute two reports on the state of ancient literature, and on the history of Germany. The Swedish government made him a chevalier of the order of the polar star. Villers died in the spring of 1815.

**VILLIERS** (George), duke of Buckingham, was born at Brookesby, 1592. He became a very great favorite of James I., who advanced him to his dignity of duke, and made him a knight of the garter, lord high admiral, and master of the horse, and gave him the disposal of all places in church and state. He retained the same place in the favor of Charles I., but the people detested him. He took the command of an expedition for the relief of Rochelle, instead of which he made a descent on the Isle of Rhé, and lost the greater part of his troops. A new expedition was planned, but he was stabbed by a lieutenant Fellon, when at Portsmouth ready to embark, 23d of August 1628.

**VILLIERS** (George), duke of Buckingham, son of the preceding, was born in 1627. He was educated at Cambridge, and, on the breaking out of the civil wars, served the king with great zeal, till the ruin of the royal cause, when he went abroad. He afterwards accompanied Charles II. to Scotland, and was with him at the battle of Worcester, when he had the good fortune to escape. By marrying the daughter of lord Fairfax, he recovered a principal part of his estate before the Restoration, when he was made a lord of the bed-chamber, member of the privy-council, and master of the horse. But, entering into a conspiracy against the king, he lost his places. He afterwards recovered the royal favor, and was sent ambassador to France. He died in 1688. He wrote the celebrated comedy of the Rehearsal, and some poems. His morals were very dissipated.



**VILLOUS**, *adj.* Lat. *villosus*. Shaggy; rough; furry.

The liquor of the stomach, which with fasting grows sharp, and the quick sensation of the inward *villosus* coat of the stomach, seem to be the cause of the sense of hunger. *Arbutnot.*

**VIMINEOUS**, *adj.* Lat. *viminus*. Made of twigs.

As in the hive's *vimineous* dome  
Ten thousand bees enjoy their home;  
Each does his studious action vary,  
To go and come, to fetch and carry.

*Prior.*

**VINCA**, in botany, a genus of the monogynia order, and pentandria class of plants; natural order thirtieth, contortæ: cor. twisted; there are two erect follicles: SEEDS naked. There are five species; only two of which are natives of Britain. 1. *V. major*, great periwinkle. It has a woody, erect stem; leaves broader and sharper pointed; pedicles of the flowers straight, and calyx as long as the tube; otherwise like the next. 2. *V. minor*, small periwinkle, has a woody, creeping, slender, crooked stem; leaves long, oval, entire, pointed, opposite, glossy. Flowers single, on long curved pedicles from the axæ of the leaves, which are large and blue.

**VINCE** (Rev. Samuel), A. M., F. R. S., late Plumian professor of astronomy and experimental philosophy at Cambridge, was of humble Suffolk parentage; but the munificence of Mr. Tilney, of Harleston, enabling him to enter himself of Caius College in 1775, he distinguished himself by gaining one of Smith's mathematical prizes, and became the senior wrangler of his year. In 1796, then a fellow of Sidney Sussex College, he was elected to the professorship, which he afterwards filled in so distinguished a manner, and which he held till his death in 1821. His works are a treatise on the Elements of Conic Sections, 8vo. 1781; another on Practical Astronomy, 4to., 1790; Plan of a Course of Lectures on Natural Philosophy, 8vo., 1793; The Principles of Fluxions, 2 vols., 8vo., 1795; The Principles of Hydrostatics, 8vo., 1796, 1800; A Complete System of Astronomy, 2 vols., 4to., 1797-1799: 3 vols., 4to., with additions, 1814; A Vindication of Christianity against the objections of Hume, in two discourses, preached before the University, 1798-1809; A Treatise on Trigonometry, the nature and use of Logarithms, &c., 8vo., 1800; A Confutation of Atheism, from the Laws of the Heavenly Bodies, 8vo., 1806; and On the Hypotheses accounting for Gravitation from Mechanical Principles, 8vo., 1806. He was, at the time of his decease, rector of Kirkby Bedon, vicar of South Creak (both in Norfolk), and archdeacon of Bedford.

**VINCENNES**, a town and castle of France, near the confluence of the Seine and Marne, about three miles east of Paris. The castle was built in a remote age, as a country residence of the royal family. It continued a palace during three centuries; but, since Louis XIV. removed the court of Versailles, has been used as a state prison. It is surrounded by a deep ditch, and has nine towers, of great height and solidity. The largest, called the dungeon, is surrounded by a separate ditch of forty feet in depth. It was here that the unfortunate duke d'Enghien was murdered on 21st March 1804. Adjoining to the castle is a fine park, and a forest called the Bois de Vin-

cennes, a favorite resort of the Parisians. Population 1800.

**VINCENNES**, a post town of the United States, and capital of Knox county, Indiana, on the east bank of the Wabash, 100 miles from its junction with the Ohio, in a direct line, and nearly 200 miles by the course of the river.

**VINCENT** (Thomas), a divine who continued to preach regularly during the plague. He died in 1671. He wrote God's Terrible Voice in the City by Plague and Fire, an Explanation of the Catechism, and other religious books.

**VINCENT** (Nathaniel), a non-conformist, wrote the Conversion of a Sinner, and the Day of Grace, 8vo.; several sermons and other pious books. He died in 1697.

**VINCENT** (William), D. D., master of Westminster School, was born in London in 1739. He was educated at Westminster, and Trinity College, Cambridge, where he obtained a fellowship. In 1762 he became an usher, and nine years after succeeded to the office of second master, at Westminster. He now took the degree of D. D., and was appointed chaplain in ordinary to the king. In 1778 he became vicar of Longdon, in Worcestershire; but soon after resigned his benefice for the rectory of Allhallows, Thames Street, in London. In 1788 he became head master at Westminster, where he continued to preside till 1801, when he was made a prebend; and two years after he succeeded to the deanery of Westminster, on the promotion of Dr. Horsley to the see of St. Asaph. As an author dean Vincent is principally known on account of his commentary on Arrian's Voyage of Nearchus; and his Periplus of the Erythrean Sea, republished together under the title of The Commerce and Navigation of the Ancients in the Indian Ocean, 1807, 2 vols., 4to. The Voyage of Nearchus was translated into French by Billecocq, Paris, 1800. Dr. Vincent died in December 1815. He published also The Conjugation of the Greek Verb, and the Greek Verb Analysed; A Defence of Public Education; and a Charity Sermon. A volume of his Discourses, with his life, was published posthumously.

**VINCENT** (St.), an island of the West Indies, is twenty-three miles long, and eighteen broad containing 84,000 acres, of which nearly one half consist of mountains incapable of improvement. The island is sufficiently watered by twenty small rivers, turning sugar mills. It is divided into five parishes, with one town, named Kingston, on the south-west, and three insignificant villages. The population in 1787 was 1450 whites and 11,853 negroes. In the same year the exports of the island sold for £186,450 in England. They were composed of coffee 634 cwt., cotton 761,880 lbs., sugar 65,000 cwt., rum 88,000 galls., and cocoa 143 cwt. The peace establishment of the island is a regiment of regular infantry, and a company of artillery, besides a Negro corps, raised in the island, and a militia of two regiments, serving without pay. The governor's salary is £2000.

**VINCENT, CAPE ST.**, the south-west point of Portugal, noted for the naval victory gained off it on 14th February 1797, by Sir John Jervis. Long. 8° 58' 39" W., lat. 37° 2' 54" N.

**VINCENT (St.), BAY**, a bay on the north coast of Terra del Fuego, a little to the east of cape St. Vincent.

**VINCENTIUS**, one of the Christian Fathers



A.D. 434. His works are best edited by Baluzius, Paris, 1699.

VINCI (Leonard), Da, was born in the castle of Vinci near Florence in 1445. Verocchio was his master, whom he soon excelled, as he did all the painters of his time. At Milan he founded his celebrated school of painting. He was also an excellent architect, and constructed the famous aqueduct which supplies Milan with water. From that place he went to Florence, where he labored with Michael Angelo, in ornamenting the grand council chamber. At the invitation of Francis I. he visited the French court, where he died in the arms of that monarch, in 1520. He composed a great number of discourses on curious subjects; but none of them have been published but his Treatise on the Art of Painting.

VINCIBLE, *adj.* Lat. *vinco*. Conquerable; superable.

He, not *vincible* in spirit, and well assured that shortness of provision would in a short time draw the seditions to shorter limits, drew his sword. *Hayward.*

VINCULUM, in algebra, a character in form of a line, or stroke drawn over a factor, divisor, or dividend, when compounded of several letters or quantities, to connect them, and shows that they are to be multiplied or divided, &c., together by the other term. Thus  $d \times \frac{a+b}{c}$  shows that  $d$  is to be multiplied into  $a+b-c$ .

VINDALIUS, a writer in the age of Augustus, who wrote ten books on agriculture.

VINDELICI, an ancient people of Germany, between the head of the Rhine and the Danube; Vindelicia, their country, forms now part of Suabia, and Bavaria, and Augsburg was their chief town, Augusta Vindelicorum.

VINDEMIATE, *v. n.* Lat. *vindemia*. To gather the vintage.

Now *vindemiate*, and take your bees towards the expiration of this month. *Evelyn.*

VINDEX (Julius), a governor of Gaul, who revolted against Nero, and on being defeated slew himself.

VINDICATE, *v. a.* } Lat. *vindico*. To justify;  
VINDICATION, *n. s.* } support; maintain; clear;  
VINDICATIVE, *adj.* } protect from censure;  
VIN'DICATOR, *n. s.* } avenge: vindication, vin-  
VINDICATORY, *adj.* } dicative, vindicator, and  
VINDICTIVE. } vindictory, follow all  
these senses: vindictive means given to revenge;  
malicious; and is only used in this sense.

He, in heat of action,  
Is more *vindictive* than jealous love. *Shakespeare.*

Public revenges are for the most part fortunate; but in private revenges it is not so. *Vindictive* persons live the life of witches, who, as they are mischievous, so end they unfortunate. *Bacon.*

The afflictions of Job were no *vindictory* punishments to take vengeance of his sins, but probatory chastisements to make trial of his graces. *Bramhall.*

The fruits of adusted choler, and the evaporations of a *vindictive* spirit. *Howel.*

I may assert eternal providence,  
And *vindicate* the ways of God to man. *Milton.*

The more numerous the offenders are, the more his justice is concerned to *vindicate* the affront. *Tillotson.*

Suits are not reparative, but *vindictive*, when they are commenced against insolvent persons. *Kettlewell.*

Augustus was of a nature too *vindictive* to have contented himself with so small a revenge. *Dryden.*

Assemble ours, and all the Theban race,  
To *vindicate* on Athens thy disgrace. *Id.*

Distinguish betwixt a passion purely *vindictive*, and

those counsels where divine justice avenges the innocent. *L'Estrange.*

Do not too many believe no zeal to be spiritual but what is censorious or *vindictive*? whereas no zeal is spiritual that is not also charitable. *Sprat.*

Where the respondent denies any proposition, the opponent must directly *vindicate* and confirm that proposition; i. e. he must make that proposition the conclusion of his next syllogism. *Watts.*

VINE, *n. s.* } Lat. *vinea*. The plant that  
VINEYARD, } bears the grape: the field or  
VINOUS, *adj.* } ground where vines grow: vi-  
VINTAGE, *n. s.* } nous is consisting, or having the  
VINTNER. } qualities, of wine: vintage, the  
annual produce of vines, or the season for gathering it: vintner, a seller of wine.

The captain left of the poor to be *vine-dressers*.

The *vine-prop* elm, the poplar never dry. *2 Kings.*  
Let us not live in France; let us quit all, *Spenser.*  
And give our *vineyards* to a barbarous people. *Shaksp.*  
The *vintner* may draw what religion he pleases. *Howell.*

The best wines are in the driest *vintages*. *Bacon.*  
Our first success in war makes Bacchus crown,  
And half the *vintage* of the year our own. *Waller.*  
The motion of the oily drops may be in part due to some partial solution made by the *vinous* spirit. *Boyle.*

Water will imbibe  
The small remans of spirit, and acquire  
A *vinous* flavour. *Philips.*  
Depending *vines* the shelving cavern screen,  
With purple clusters blushing through the green.

The *vintner*, by mixing poison with his wines, destroys more lives than any malignant disease. *Pope.*  
*Swift.*

VINE, in botany. See VITIS.

VINEGAR, *n. s.* Fr. *vinaigre*. Wine, or vinous liquor, grown sour; any thing acid or acrid, literally or metaphorically.

Some laugh like parrots at a bag-piper,  
And others of such *vinegar* aspect  
That they'll not shew their teeth in way of smile.

*Shakespeare.*  
*Vinegar* is made by setting the vessels of wine against the hot sun; and therefore *vinegar* will not burn, much of the finer parts being exhaled. *Bacon.*

Heaven's blest beam turns *vinegar* more sour. *Pope.*

VINEGAR, acetum, an agreeable acid and penetrating liquor, prepared from wine, cyder, beer, and other liquors; of considerable use, both as a medicine and a sauce. The word is French, *vinai-gre*; formed from *vin*, 'wine,' and *aigre*, 'sour'. See ACETUM, and CHEMISTRY. Wine and other vinous liquors are changed into vinegar by the acetous fermentation, which is nothing more than the acidification or oxygenation of wine, produced in the open air by means of the absorption of oxygen.

Vinegar is composed of hydrogen and carbon united together in proportions not yet ascertained, and changed into the acid state by oxygen. As vinegar is an acid, we might conclude from analogy that it contains oxygen; but this is put beyond doubt by direct experiments. In the first place, we cannot change wine into vinegar without the contact of air containing oxygen; secondly, this process is accompanied by a diminution of the air in which it is carried on from the absorption of its oxygen; and, thirdly, wine may be changed into vinegar by any other means of oxydation. Independent of the proofs which these facts furnish of the acetous acid being produced by the oxygenation of wine, an experiment made by Chaptal gives a distinct view of



what takes place in the process. He impregnated some water with about its own bulk of carbonic acid gas, procured from beer vats in fermentation; and placed this water in a cellar, in vessels communicating with the air, and in a short time the whole was converted into acetous acid. This carbonic acid gas, procured from beer vats in fermentation, is not perfectly pure, but contains a great quantity of alcohol in solution; wherefore water impregnated with it contains all the materials necessary for forming the acetous acid. The alcohol furnishes hydrogen and one portion of carbon; the carbonic furnishes oxygen, and the rest of the carbon; and the air of the atmosphere furnishes the rest of the oxygen necessary for changing the mixture into acetous acid. From this observation it follows that nothing but hydrogen is wanting to convert carbonic acid into acetous acid; or, more generally, that by means of hydrogen, and according to the degree of oxydation, carbonic acid may be changed into all the vegetable acids: and, on the contrary, that, by depriving any of the vegetable acids of their hydrogen, they may be converted into carbonic acid.

A process still frequently used in making vinegar consists in fixing two casks in a warm room or place, to which two false bottoms of basket-work are fixed at a certain distance, upon which the refuse of grapes and vine twigs are placed. One of these tuns is filled with wine, and the other only half filled. The fermentation begins in this last; and, when it is in full action, it is checked by filling the cask up with wine out of the other. The fermentation then takes place in the last mentioned cask, that remained half filled; and this is checked in the same manner by pouring back the same quantity of liquid out of the other: and in this way the process is continued till the vinegar is made, which is usually in about fifteen days. When the fermentation develops itself, the liquid becomes heated and turbid; a great number of filaments are seen in it; it emits a lively smell; and much air is absorbed, according to the observation of the abbé Rozier. A large quantity of lees is formed, which subsides when the vinegar becomes clear. This lees is very analogous to the fibrous matter. Vinegar is purified by distillation. The first portions which pass over are weak; but soon afterwards the acetous acid rises, and is stronger the later it comes over in the distillation. This fluid is called distilled vinegar; and is thus cleared of its coloring principle, and the lees, which are always more or less abundant. Vinegar may likewise be concentrated by exposing it to the frost. The superabundant water freezes, and leaves the acid more condensed.

Take however a middling sort of beer, indifferently well hopped; into which, when it has worked well and grown fine, put some rape, or husks of grapes, usually brought home for that purpose; mash them together in a tub: then, letting the rape settle, draw off the liquid part, put it into a cask, and set it in the sun as hot as may be; the bung being only covered with a tile, or slate-stone: and in about thirty or forty days it will become a good vinegar, and may pass in use as well as that made of wine if it be refined, and kept from turning musty. Or thus:—To every gallon of spring-water add three pounds of Malaga raisins; which put into an earthen jar, and place them where they may have the hottest sun from May till Michaelmas; then pressing all well tun the liquor up in a very strong iron-hooped vessel, to prevent its bursting: it will appear very

thick and muddy when newly pressed: but will refine in the vessel, and be as clear as wine. Thus let it remain untouched for three months before it is drawn off, and it will prove excellent vinegar.

*Method of making cyder into vinegar.*—The cyder (the meanest of which will serve the purpose) is first to be drawn off fine into another vessel, and a quantity of the must of apples to be added: the whole is set in the sun, if there be convenience for it; and at a week or nine days end it may be drawn off.

*Method of making wine into vinegar.*—Any sort of vinous liquor being mixed with its own fæces, flowers, or ferment, and its tartar first reduced to powder; or else with the acid and austere stalks of the vegetable whence the wine was obtained, which hold a large proportion of tartar; and the whole being kept frequently stirring in a vessel which has formerly held vinegar, or set in a warm place full of the steams of the same, will begin to ferment anew, conceive heat, grow sour by degrees, and soon after turn into vinegar. The remote subjects of acetous fermentation are the same with those of vinous; but the immediate subjects of it are all kinds of vegetable juices, after they have once undergone that fermentation which reduces them to wine; for it is absolutely impossible to make vinegar of must, the crude juice of grapes, and other ripe fruits, without the previous assistance of vinous fermentation. The proper ferments for this operation, whereby vinegar is prepared, are, 1. The fæces of all acid wines. 2. The lees of vinegar. 3. Pulverized tartar, especially that of Rhenish wine, or the cream or crystals thereof. 4. Vinegar itself. 5. A wooden vessel well drenched with vinegar, or one that has long been employed to contain it. 6. Wine that has often been mixed with its own fæces. 7. The twigs of vines, and the stalks of grapes, currants, cherries, or other vegetables of an acid austere taste. 8. Bakers' leaven, after it has turned acid. 9. All manner of ferments, compounded of those already mentioned.

Acetic acid is the chemical name of the same acid which, in a very dilute and somewhat impure state, is called vinegar.

This acid, says Dr. Ure, is found combined with potash in the juices of a great many plants; particularly the *sambucus nigra*, *phœnix dactylifera*, *galium verum*, and *rhus typhinus*. Sweat, urine, and even fresh milk contain it. It is frequently generated in the stomachs of dyspeptic patients. Almost all dry vegetable substances, and some animal, subjected in close vessels to a red heat, yield it copiously. It is the result likewise of a spontaneous fermentation, to which liquid vegetable and animal matters are liable. Strong acids, as the sulphuric and nitric, develop the acetic by their action on vegetables. It was long supposed, on the authority of Boerhaave, that the fermentation which forms vinegar is uniformly preceded by the vinous. This is a mistake. Cabbages sour in water, making sour crout; starch in starch-makers sour waters; and dough itself, without any previous production of wine.

The varieties of acetic acids known in commerce are four:—1. Wine vinegar; 2. Malt vinegar; 3. Sugar vinegar; 4. Wood vinegar. We shall describe first the mode of making these commercial articles, and then that of extracting the absolute acetic acid of the chemist, either from these vinegars, or directly from chemical compounds,



which it is a constituent. The following is the plan of making vinegar at present practised in Paris:—The wine destined for vinegar is mixed in a large tun with a quantity of wine lees, and the whole being transferred into cloth sacks, placed within a large iron-bound vat, the liquid matter is extruded through the sacks by superincumbent pressure. What passes through is put into large casks, set upright, having a small aperture in their top. In these it is exposed to the heat of the sun in summer, or to that of a stove in winter. Fermentation supervenes in a few days. If the heat should then rise too high, it is lowered by cool air and the addition of fresh wine. In the skilful regulation of the fermentative temperature consists the art of making good wine vinegar. In summer the process is generally completed in a fortnight: in winter double the time is requisite. The vinegar is then run off into barrels, which contain several chips of birch-wood. In about a fortnight it is found to be clarified, and is then fit for the market. It must be kept in close casks.

The manufacturers at Orleans prefer wine of a year old for making vinegar. But if by age the wine has lost its extractive matter, it does not readily undergo the acetous fermentation. In this case acetification, as the French term the process, may be determined by adding slips of vines, bunches of grapes, or green woods. It has been asserted that alcohol, added to fermentable liquor, does not increase the product of vinegar. But this is a mistake. Stahl observed, long ago, that if we moisten roses or lilies with alcohol, and place them in vessels in which they are stirred from time to time, vinegar will be formed. He also informs us, if after abstracting the citric acid from lemon juice by crabs' eyes (carbonate of lime), we add a little alcohol to the supernatant liquid, and place the mixture in a proper temperature, vinegar will be formed.

Chaptal says that two pounds of weak spirits, specific gravity 0.985, mixed with 300 grains of beer yeast, and a little starch water, produced extremely strong vinegar. The acid was developed on the fifth day. The same quantity of starch and yeast, without the spirit, fermented more slowly, and yielded a weaker vinegar. A slight motion is found to favor the formation of vinegar, and to endanger its decomposition after it is made. Chaptal ascribes to agitation the operation of thunder; though it is well known that, when the atmosphere is highly electrified, beer is apt to become suddenly sour, without the concussion of a thunder-storm. In cellars exposed to the vibrations occasioned by the rattling of carriages, vinegar does not keep well. The lees, which had been deposited by means of isinglass and repose, are thus jumbled into the liquor, and make the fermentation recommence. Almost all the vinegar of the north of France being prepared at Orleans, the manufacture of that place has acquired such celebrity as to render their process worthy of a separate consideration.

The Orleans casks contain nearly 400 pints of wine. Those which have been already used are preferred. They are placed in three rows, one over another, and in the top have an aperture of two inches diameter, kept always open. The wine for acetification is kept in adjoining casks, containing beech shavings, to which the lees adhere. The wine thus clarified is drawn off to make vinegar. 100 pints of good vinegar, boiling hot, are first

poured into each cask, and left there for eight days. Ten pints of wine are mixed in, every eight days, till the vessels are full. The vinegar is allowed to remain in this state fifteen days before it is exposed to sale.

The used casks, called mothers, are never emptied more than half, but are successively filled again, to acetify new portions of wine. In order to judge if the mother works, the vinegar makers plunge a spatula into the liquid; and, according to the quantity of froth which the spatula shows, they add more or less wine. In summer the atmospheric heat is sufficient. In winter stoves heated to about 75° Fahrenheit maintain the requisite temperature in the manufactory.

In some country districts the people keep in a place where the temperature is mild and equable a vinegar cask, into which they pour such wine as they wish to acetify; and it is always preserved full by replacing the vinegar drawn off by new wine. To establish this household manufacture it is only necessary to buy at first a small cask of good vinegar.

At Gand a vinegar from beer is made, in which the following proportions of grain are found to be most advantageous:—

1880 Paris pounds of malted barley.

700 . . . . . wheat.

500 . . . . . buck wheat.

These grains are ground, mixed, and boiled, along with twenty-seven casks-full of river water, for three hours. Eighteen casks of good beer for vinegar are obtained. By a subsequent decoction more fermentable liquid is extracted, which is mixed with the former. The whole brewing yields 3000 English quarts.

In this country vinegar is usually made from malt. By mashing with hot water, 100 gallons of wort are extracted in less than two hours from one boll of malt. When the liquor has fallen to the temperature of 75° Fahrenheit, four gallons of the barm of beer are added. After thirty-six hours it is racked off into casks, which are laid on their sides, and exposed, with their bung holes loosely covered, to the influence of the sun in summer; but in winter they are arranged in a stove-room. In three months this vinegar is ready for the manufacture of sugar of lead. To make vinegar for domestic use, however, the process is somewhat different. The above liquor is racked off into casks placed upright, having a false cover pierced with holes fixed at about a foot from their bottom. On this a considerable quantity of rape, or the refuse from the makers of British wine, or otherwise a quantity of low priced raisins, is laid. The liquor is turned into another barrel every twenty-four hours, in which time it has begun to grow warm. Sometimes, indeed, the vinegar is fully fermented, as above, without the rape, which is added towards the end, to communicate flavor.

Good vinegar may be made from a weak syrup, consisting of eighteen ounces of sugar to every gallon of water. The yeast and rape are to be here used as above described. Whenever the vinegar (from the taste and flavor) is considered to be complete, it ought to be decanted into tight barrels or bottles, and well secured from access of air. A momentary ebullition before it is bottled is found favorable to its preservation. In a large manufactory of malt vinegar, a considerable revenue is derived from the sale of yeast to the bakers



Vinegar obtained by the preceding methods has more or less of a brown color, and a peculiar but rather grateful smell. By distillation in glass vessels, the coloring matter, which resides in a mucilage, is separated, but the fragrant odor is generally replaced by an empyreumatic one. The best French wine vinegars, and also some from malt, contain a little alcohol, which comes over early with the watery part, and renders the first product of distillation scarcely denser, sometimes even less dense, than water. It is accordingly rejected. Towards the end of the distillation the empyreuma increases. Hence only the intermediate portions are retained as distilled vinegar. Its specific gravity varies from 1.005 to 1.015, while that of common vinegar of equal strength varies from 1.010 to 1.025.

A crude vinegar has been long prepared for the calico printers, by subjecting wood in iron retorts to a strong red heat. The following arrangement of apparatus has been found to answer well. A series of cast-iron cylinders, about four feet diameter and six feet long, are built horizontally in brick work, so that the flame of one furnace may play round about two cylinders. Both ends project a little from the brick work. One of them has a disc of cast-iron well fitted and firmly bolted to it, from the centre of which disc an iron tube about six inches diameter proceeds, and enters at a right angle the main tube of refrigeration. The diameter of this tube may be from nine to fourteen inches, according to the number of cylinders. The other end of the cylinder is called the mouth of the retort. This is closed by a disc of iron, smeared round its edge with clay-lute, and secured in its place by wedges. The charge of wood for such a cylinder is about 8 cwt. The hard woods, oak, ash, birch, and beech, are alone used. Fir does not answer. The heat is kept up during the day time, and the furnace is allowed to cool during the night. Next morning the door is opened, the charcoal removed, and a new charge of wood is introduced. The average product of crude vinegar called pyroligneous acid is thirty-five gallons. It is much contaminated with tar; is of a deep brown color; and has a specific gravity of 1.025. Its total weight is therefore about 300 lbs. But the residuary charcoal is found to weigh no more than one-fifth of the wood employed. Hence nearly one half of the ponderable matter of the wood is dissipated in incondensable gases. Count Rumford states that the charcoal is equal in weight to more than four-tenths of the wood from which it is made. The count's error seems to have arisen from the slight heat of an oven to which his wood was exposed in a glass cylinder. The result now given is the experience of an eminent manufacturing chemist at Glasgow. The crude pyroligneous acid is rectified by a second distillation in a copper still, in the body of which about twenty gallons of viscid tarry matter are left from every 100. It has now become a transparent brown vinegar, having a considerable empyreumatic smell, and a specific gravity of 1.013. Its acid powers are superior to those of the best household vinegar, in the proportion of 3 to 2. By redistillation, saturation with quicklime, evaporation of the liquid acetate to dryness, and gentle torrefaction, the empyreumatic matter is so completely dissipated, that on decomposing the calcareous salt by sulphuric acid, a pure, perfectly colorless, and grateful vinegar rises

in distillation. Its strength will be proportional to the concentration of the decomposing acid.

The acetic acid of the chemist may be prepared in the following modes:—1. Two parts of fused acetate of potash with one of the strongest oil of vitriol yield, by slow distillation from a glass retort into a refrigerated receiver, concentrated acetic acid. A small portion of sulphurous acid, which contaminates it, may be removed by redistillation from a little acetate of lead. 2. Or four parts of good sugar of lead, with one part of sulphuric acid treated in the same way, afford a slightly weaker acetic acid. 3. Gently calcined sulphate of iron, or green vitriol, mixed with sugar of lead in the proportion of one of the former to two and a half of the latter, and carefully distilled from a porcelain retort into a cooled receiver, may be also considered a good economical process. Or without distillation, if 100 parts of well dried acetate of lime be cautiously added to sixty parts of strong sulphuric acid diluted with five parts of water, and digested for twenty-four hours and strained, a good acetic acid, sufficiently strong for every ordinary purpose, will be obtained.

The distillation of acetate of copper or of lead per se, has also been employed for obtaining strong acid. Here, however, the product is mixed with a portion of the fragrant pyro-acetic spirit, which it is troublesome to get rid of. Undoubtedly the best process for the strong acid is that first described, and the cheapest the second or third. When of the utmost possible strength its specific gravity is 1.062. At the temperature of 50° Fahrenheit it assumes the solid form, crystallising in oblong rhomboidal plates. It has an extremely pungent odor, affecting the nostrils and eyes even painfully when its vapor is incautiously snuffed up. Its taste is eminently acid and acrid. It excoriates and inflames the skin.

The purified wood vinegar, which is used for pickles and culinary purposes, has commonly a specific gravity of about 1.009; when it is equivalent in acid strength to good wine or malt vinegar of 1.014. It contains about one-twentieth of its weight of absolute acetic acid, and nineteen-twentieths of water. An excise duty of four-pence is levied on every gallon of vinegar of the above strength. This, however, is not estimated directly by its specific gravity, but by the specific gravity which results from its saturation with quicklime. The decimal number of the specific gravity of the calcareous acetate is nearly double that of the pure wood vinegar. Thus 1.009 in vinegar becomes 1.018 in liquid acetate. But the vinegar of fermentation = 1.014 will become only 1.023 in acetate, from which, if 0.005 be subtracted for mucilage or extractive, the remainder will agree with the density of the acetate from wood. A glass hydrometer of Fahrenheit's construction is used for finding the specific gravities. It consists of a globe about three inches diameter, having a little ballast ball drawn out beneath, and a stem above of about three inches long, containing a slip of paper with a transverse line in the middle, and surmounted with a little cup for receiving weights or poises. The experiments on which this instrument, called an acetometer, is constructed, have been detailed in the sixth volume of the *Journal of Science*. They do not differ essentially from those of Mollerat. The following points were determined by this chemist:—The acid of specific gravity 1.063



requires two and a half times its weight of crystallised subcarbonate of soda for saturation, whence M. Thenard regards it as a compound of eleven of water, and eighty-nine of real acid in 100 parts. Combined with water, in the proportion of 100 to 112.2, it does not change its density, but it then remains liquid several degrees below the freezing point of water. By diluting it with a smaller quantity of water, its specific gravity augments, a circumstance peculiar to this acid. It is 1.079, or at its maximum, when the water forms one-third of the weight of the acid.—Ann. de Chimie, tom. 66.

The following table is given by Messrs. Taylor, as the basis of their acetometer:—

Revenue proof acid, called by the manufacturer No. 24.

|         |        |                            |    |
|---------|--------|----------------------------|----|
| sp. gr. | 1.0085 | contains real acid in 100, | 5  |
|         | 1.0170 |                            | 10 |
|         | 1.0257 |                            | 15 |
|         | 1.0320 |                            | 20 |
|         | 1.0470 |                            | 30 |
|         | 1.0580 |                            | 40 |

An acetic acid of very considerable strength may also be prepared by saturating perfectly dry charcoal with common vinegar, and then distilling. The water easily comes off and is separated at first; but a stronger heat is required to expel the acid. Or by exposing vinegar to very cold air, or to freezing mixtures, its water separates in the state of ice, the interstices of which are occupied by a strong acetic acid, which may be procured by draining. The acetic acid, or radical vinegar of the apothecaries, in which they dissolve a little camphor or fragrant essential oil, has a specific gravity of about 1.070. It contains fully one part of water to two of the crystallised acid. The pungent smelling salt consists of sulphate of potash moistened with that acid. Acetic acid acts on tin, iron, zinc, copper, and nickel; and it combines readily with the oxides of many other metals, by mixing a solution of their sulphates with that of an acetate of lead.

This acid, as it exists in the acetates of barytes and of lead, has been analysed by MM. Gay Lussac and Thenard, and also by Berzelius.

Gay Lussac found 50.224 carbon, 5.629 hydrogen, and 44.147 oxygen; or in other terms 50.224 carbon, 46.911 of water or its elementary constituents, and 2.863 oxygen in excess. Berzelius,—46.83 carbon, 6.33 hydrogen, and 46.82 oxygen in 100 parts.

By saturating known weights of bases with acetic acid, and ascertaining the quantity of acetates obtained after cautious evaporation to dryness, Berzelius obtained with lime (3.56) 6.5 for the prime equivalent of acetic acid, and with yellow oxide of lead 6.432. Recent researches, which will be published in a detailed form, induce me to fix the prime of acetic acid at 7.0.

Acetic acid dissolves resins, gum resins, camphor, and essential oils. Its odor is employed in medicine to relieve nervous headache, fainting fits, or sickness occasioned by crowded rooms. In a slightly dilute state, its application has been found to check hemorrhage from the nostrils. Its anticontagious powers are now little trusted to. It is very largely used in calico printing. Moderately rectified pyrolignous acid has been recommended for the preservation of animal food; but the empyreumatic taint it communicates to bodies im-

mersed in it is not quite removed by their subsequent ebullition in water.

Acetic acid and common vinegar are sometimes fraudulently mixed with sulphuric acid to give them strength. This adulteration may be detected by the addition of a little chalk, short of their saturation. With pure vinegar the calcareous base forms a limpid solution, but with sulphuric acid a white insoluble gypsum. Muriate of barytes is a still nicer test. British fermented vinegars are allowed by law to contain a little sulphuric acid, but the quantity is frequently exceeded. Copper is discovered in vinegars by supersaturating them with ammonia, when a fine blue color is produced; and lead by sulphate of soda, hydrosulphurets, and sulphuretted hydrogen. None of these should produce any change on genuine vinegar.

Acetic acid dissolves deutoxide of barium without effervescence. By precipitating the barytes with sulphuric acid, there remains an oxygenised acid, which, being saturated with potash, and heated, allows a great quantity of oxygen gas to escape. There is disengaged at the same time a notable quantity of carbonic acid gas. This shows that the oxygen, when assisted by heat, unites in part with the carbon, and doubtless likewise with the hydrogen of the acid. It is in fact acetic deutoxide of hydrogen.

Salts consisting of the several bases, united in definite proportions to acetic acid, are called acetates. They are characterised by the pungent smell of vinegar, which they exhale on the effusion of sulphuric acid; and by their yielding on distillation in a moderate red heat a very light, odorous, and combustible liquid called pyro-acetic spirit. They are all soluble in water; many of them so much so as to be uncrystallisable. About thirty different acetates have been formed, of which only a very few have been applied to the uses of life.

The acetic acid unites with all the alkalies and most of the earths, and with these bases it forms compounds, some of which are crystallisable. The salts it forms are distinguished by their great solubility: their decomposition by fire, which carbonises them; the spontaneous alteration of their solution; and their decomposition by a great number of acids, which extricate from them the acetic acid in a concentrated state. It unites likewise with most of the metallic oxides.

With barytes, the saline mass, by spontaneous evaporation, crystallises in fine transparent prismatic needles, of a bitterish acid taste, which do not deliquesce when exposed to the air, but rather effloresce.

With potash this acid unites, and forms a deliquescent salt scarcely crystallisable, called formerly foliated earth of tartar, and regenerated tartar. The solution of this salt, even in closely stopped vessels, is spontaneously decomposed.

With soda it forms a crystallisable salt, which does not deliquesce.

The salt formed by dissolving chalk or other calcareous earth in distilled vinegar, has a sharp bitter taste, and appears in the form of silky crystals. The acetate of strontian has a sweet taste, is very soluble, and is easily decomposed by a strong heat.

The salt formed by uniting vinegar with ammonia, anciently called spirit of mindererus, is generally in a liquid state, and is commonly believed not to be crystallisable. It nevertheless may be reduced into the form of small needle-shaped crystals, when



this liquor is evaporated to the consistence of a syrup.

With magnesia the acetic acid forms a viscid saline mass, which does not shoot into crystals, but remains deliquescent, has a taste sweetish at first, and afterwards bitter, and is soluble in spirit of wine.

Glucine is readily dissolved by acetic acid. This solution, as Vauquelin informs us, does not crystallise; but is reduced by evaporation to a gummy substance, which slowly becomes dry and brittle; retaining a kind of ductility for a long time. It has a saccharine and pretty strongly astringent taste, in which that of vinegar however is distinguishable.

Yttria dissolves readily in acetic acid, and the solution yields by evaporation crystals of acetate of yttria. These have commonly the form of thick six-sided plates, and are not altered by exposure to the air.

Acetate of alumina is commonly made by adding gradually to a boiling solution of alum in water a solution of acetate of lead, till no further precipitation ensues. The sulphate of lead having subsided, decant the supernatant liquor, evaporate, and the acetate of alumina may be obtained in small needle-shaped crystals, having a strong styptic and acetous taste. This salt is of great use in dyeing and calico-printing.

Acetate of zirconia can be formed by pouring acetic acid on newly precipitated zirconia. It has an astringent taste. It does not crystallise; but, when evaporated to dryness, forms a powder, which does not attract moisture from the air. It is very soluble both in water and alcohol; and is not so easily decomposed by heat as nitrate of zirconia. M. Vauquelin has found that acetic acid may be combined with volatile oils.

Vinegar dissolves the true gums, and partly the gum resins, by means of digestion.

VINERY, in horticulture, a sort of garden erection generally consisting of a wall twelve or fourteen feet in height, extending from east to west, furnished with stoves and proper flues, with roof and lights of glass, covering a border of some extent, as ten feet or more in width. When vines are to be forced early, upright glasses, two and a half or three feet in height, are often employed in front to support the roof, and to admit sun and light to the border, which is frequently occupied with low-growing vegetables; but, when they are not wanted early, a low wall will answer equally well. In forcing vines, the following dimensions are supposed to form an improved vinery:—The wall twelve feet high, the breadth ten feet, and the height of the upright wall in front three feet, where the roof will form an angle of about forty-three degrees; which experience has shown to be a suitable pitch. These buildings may also be constructed on a plan somewhat similar to that of a single-pitched pine-stove, having the back wall fourteen feet high; the roof slanting, and covering an extent of about sixteen feet, with a flue running from east to west near the front wall. This is well suited, not only for grapes, but early crops of melons, strawberries, &c.

Where there are peach-houses, the glass frames may be employed for the vinery, when constructed with this intention, and good grapes may be obtained from vines trained against walls about six feet high, by means of melon-frame glasses, where small slanting roof is made proper to receive them.

But a small degree of fire-heat is of great advantage, and might be applied either by a flued wall, the flue running through the house, or by cast-iron pipes for the purpose.

These sorts of houses, Mr. Nicol remarks, vary exceedingly in their construction; and, although some lay great stress on this article (and there are extremes which ought not to be followed), he is convinced the failure of success in the production of the grape is much less a consequence of bad construction in the house, than in the preparation of the border, the choice of the kinds, and the general management. It has fallen to his lot to have the construction and management of three several and differently constructed grape-houses in the same garden, under his care for years, which have equally and uniformly produced excellent crops. This, in his opinion, is a proof of the necessity of a greater niceness in the formation of the border being observed, than in the construction of the house; the fire-place and flues excepted, which should always be particularly attended to. He also thinks that the scite of a vinery is an object of such consequence to the welfare of the plant, and successful cultivation and production of well-flavoured fruit, that the greatest care should be taken in the choice of it. A gentle hill, having a south aspect, and considerable declivity that way, the soil a strong brown loam of two feet, over a bottom of dry sand, gravel, or soft clay, is, he thinks, the most desirable, and would be the least expensive of all situations. In this case the border requires no paving or draining; and admits of a proper mixture of sandy loam, vegetable mould, marle, and dung, by the removal of two feet of the natural bottom, with the natural soil, to form a border, perfectly adapted to the growth of the vine, in the following proportion, viz. one half strong brown loam, a quarter light sandy loam, an eighth vegetable mould of decayed tree-leaves, and an eighth stable-dung; to which add about a fiftieth part of shell-marle. This is the composition of the vine-borders at Wemyss Castle, none of which are less than four feet deep, and one (owing to the accidental situation of the house) is six.

VIO (Thomas de). See CAJETAN.

VIOL, n. s. } Fr. *violle*; Ital. *viola*. A stringed  
VIOLIN'. } instrument of music: a fiddle.

Praise with timbrels, organs, flutes;

Praise with *violins* and lutes.

Sandys.

My tongue's use is to me no more

Than an unstringed *viol*, or a harp.

Shakspeare.

Loud o'er the rest Cremona's trump doth sound;

Me softer airs befit, and softer strings

Of lute or *viol*, still more apt for mournful found.

Milton.

Sharp *violins* proclaim

Their jealous pangs and desperation,

For the fair disdainful dame.

Dryden.

VIOLA, in botany, a genus of plants of the class syngenesia, order monogynia; in the natural system arranged under the twenty-ninth order, campanaceæ. The calyx is pentaphyllous; the corolla five petaled, irregular, with a nectarium behind, horn-shaped; the capsule is above the germen, three-valved, monolocular. There are twenty-eight species; six of which are natives of Britain. The most important are, 1. *V. odorata*, purple sweet violet, has leaves heart-shaped, notched: the flowers deep purple, single; creeping scions. The flowers of this plant, taken in the quantity of a dram or two, are said to be gently purgative or laxative, and, ac-



cording to Bergius and some others, they possess an anodyne and pectoral quality. 2. *V. palustris*, marsh violet. The leaves are smooth, reniform, two or three on each foot-stalk; flowers pale blue, small, inodorous. An infusion of the flowers is an excellent test of the presence of acids and alkalies. 3. *V. tricolor*, pansies, heart's-ease, or three faces under a hood. The stems are diffuse, procumbent, triangular; the leaves oblong, cut at the edges; stipule dentated; the flowers purple, yellow and light blue; inodorous.

**VIOLATE**, *v. a.* } Latin *violō*. To injure;  
**VIOLA'TION**, *n. s.* } hurt; infringe; break in  
**VIOLA'TOR**, } upon; ravage; ravish; de-  
**VI'OLENCE**, } flout: the next two noun  
**VI'OLENT**, *adj.* } substantives follow these  
**VI'OLENTLY**, *adv.* } senses: violence is, force;  
 strength; force employed in outrage; attack; as-  
 sault; injury; eagerness; vehemence: the adjective and adverb corresponding.

Those offences which are by their special qualities breaches of supernatural laws, do also, for that they are generally evil, *violate* in general that principle of reason, which willeth universally to fly from evil.

We might be reckoned fierce and *violent*, to tear away that, which, if our mouths did condemn, our consciences would storm and repine thereat. *Id.*

Some *violent* hands were laid on Humphry's life. *Shakespeare.*

Some of *violated* vows  
 'Twixt the souls of friend and friend. *Id.*

Angelo is an adulterous thief,  
 An hypocrite, a virgin *violator*. *Id.*

A noise did scare me from the tomb;  
 And she, too desperate, would not go with me;  
 But, as it seems, did *violence* on herself. *Id.*

Flame burneth more *violently* towards the sides than  
 in the midst. *Bacon.*

Ancient privileges must not, without great necessities,  
 be revoked, nor forfeitures be exacted *violently*, nor  
 penal laws urged rigorously. *Taylor.*

Grieved at his heart, when looking down he saw  
 The whole earth filled with *violence*; and all flesh  
 Corrupting each their way. *Milton.*

Forbid to *violate* the sacred fruit. *Id.*

Conqueror death discovers them scarce men;  
*Violent* or shameful death their due reward. *Id.*

I would *violate* my own arm rather than a church. *Browne.*

Kindness for man, and pity for his fate,  
 May mix with bias, and yet not *violate*. *Dryden.*

We cannot, without offering *violence* to all records,  
 divine and human, deny an universal deluge. *Burnet.*

The posture we find them in, according to his doctrine,  
 must be looked upon as unnatural and *violent*; and no  
 violent state can be perpetual. *Id.*

May such places, built for divine worship, derive a  
 blessing upon the head of the builders, as lasting as the  
 curse that never fails to rest upon the sacrilegious *violators*  
 of them! *South.*

**VI'OLET**, *n. s.* Fr. *violette*; Lat. *viola*. A  
 flower.

When daisies pied, and *violets* blue,  
 Do paint the meadows much bedight. *Shakspeare.*

Sweet echo, sweetest nymph, that liv'st unseen  
 By slow Meander's margent green,  
 And in the *violet*-embroidered vale. *Milton.*

**VI'OLET**, in botany. See **VIOLA**.

**VI'OLET CRAB**, in zoology. See **CANCER**.

**VIOLIN**, or **FIDDLE**, a musical instrument,  
 mounted with four strings or guts, and struck or  
 played with a bow. The style and sound of the  
 violin is the gayest and most sprightly of all other

instruments; and hence it is of all others the fittest  
 for dancing. Yet there are ways of touching it  
 which render it grave, soft, languishing, and fit for  
 church or chamber music. It generally makes  
 the treble or highest parts in concerts. Its har-  
 mony is from fifth to fifth. Its play is composed  
 of bass, counter-tenor, tenor, and treble; to which  
 may be added a fifth part; each part has four fifths,  
 which rise to a greater seventeenth. See **MUSIC**.

**VIOLONCELLO**, of the Italians, is properly our  
 fifth violin; which is a little bass violin, half the  
 size of the common bass violin, and the strings  
 bigger and longer in proportion; consequently  
 its sound is an octave lower than our bass violin;  
 which has a noble effect in concerts.

**VI'PER**, *n. s.* } Lat. *vipera*. A serpent: hav-  
**VI'PEROUS**, *adj.* } ing the qualities of a viper.

A *viper* came out of the heat, and fastened on his  
 hand. *Acts.*

He'll gall of asps with thirsty lip suck in;  
 The *viper's* deadly teeth shall pierce his skin. *Sandys.*

We are peremptory to dispatch  
 This *vip'rous* traitor. *Shakspeare.*

Some *vip'rous* criticism may bereave  
 Th' opinion of thy worth for some defect. *Daniel.*

*Viper*-catchers have a remedy, in which they place  
 such great confidence as to be no more afraid of the  
 bite of a *viper* than of a common puncture. This is no  
 other than *axungia viperina*, presently rubbed into the  
 wound. *Derham.*

**VIPER**, in zoology. See **COLUBER**, **POISON**, and  
**SERPENT**.

**VIPER'S BUGLOSS**, *n. s.* Lat. *echium*. A plant.  
 Each flower is succeeded by four seeds, which are in  
 form of a *viper's* head. *Miller.*

**VIPER'S BUGLOSS**. See **ECHTUM**.

**VIPER'S GRASS**. See **SCORZONERA**.

**VIRA'GO**, *n. s.* Lat. *virago*. A female warrior;  
 a woman with the qualities of a man; a brawling  
 or violent woman.

Melpomene is represented like a *virago*, or manly  
 lady, with a majestic and grave countenance. *Peach.*

To arms! to arms! the fierce *virago* cries,  
 And swift as lightning to the combat flies. *Pope.*

**VIRECTA**, in botany, a genus of plants of the  
 class pentandria, and order of monogynia.

**VIR'ELAY**, *n. s.* Fr. *virelay*, *vielai*. A sort  
 of little ancient French poem, consisting only of  
 two rhymes and short verses with stops. Not used.

The band of flutes began to play  
 To which a lady sung a *virelay*:  
 And still at every close she would repeat  
 The burden of the song, The daisy is so sweet. *Dryd.*

**VIRENT**, *adj.* Lat. *virens*. Green; not faded.

In these, yet fresh and *virent*, they carve out the  
 figures of men and women. *Browne.*

**VIRGE**, *n. s.* Lat. *virga*; better **VERGE**, which  
 see, from Fr. *verge*. A dean's mace.

Suppose him now a dean compleat,  
 Devoutly lolling in his seat;  
 The silver *virge*, with decent pride,  
 Stuck underneath his cushion side. *Swift.*

**VIRGIL**, or **PUBLIUS VIRGILIUS MARO**, prince  
 of the Latin poets, was born at Andes, near Man-  
 tua, about seventy years B. C. His first years  
 were spent at Cremona, whence he removed to Rome,  
 when his country was partitioned out among the  
 soldiers after the battle of Philippi. There, by  
 means of his friend Mæcenas, he was introduced  
 to Augustus, who restored to him his estate. On  
 this occasion he wrote his first Eclogue; and, on  
 completing the *Bucolics*, he wrote the *Georgics*.

After these were finished, and had been read by Augustus, he began the *Æneid* at the request of the emperor. The poet was engaged eleven years on this immortal work, but died without revising it at Brundisium, B.C. 19, in the fifty-second year of his age. He left the greatest part of his property to Mæcenas, Tucca, and Augustus. His remains were interred on a spot in the road leading from Naples to Puteoli. He was of a remarkably timorous disposition. The best editions of Virgil are Baskerville's 4to., Birmingham, 1757; the Variorum, 8vo., 1661: and Glasgow, 12mo. 1758. This poet has been well translated into English by Dryden, Pitt, and Warton.

VIRGIL (Polydore), an historian, born at Urbino in Italy, was sent in the beginning of the sixteenth century by pope Alexander VI., as sub-collector of the Papal tax called Peter pence, into this kingdom. Having gained the favor of Henry VIII., he was preferred step by step to the archdeaconry of Wells. By order of that sovereign he wrote a History of England in Latin, more elegant than faithful. Polydore continued in England during the whole reign of Henry VIII., and part of that of Edward VI. In 1550 he requested leave to revisit his native country. He was accordingly dismissed with a present of 300 crowns, and the privilege of holding his preferments to the end of his life. He died at Urbino in the year 1555. He wrote also, 1. *De Rerum Inventoribus*; of which an English translation was published by Langley in 1663. 2. *De Prodigiiis et Sortibus*. 3. *Episcoporum Angliæ Catalogus*, MS. 4. *De Vita Perfecta*, Basil, 1546, 1553, 8vo. 5. *Epistolæ Eruditæ*; and some other works.

VIRGIN, *n. s., adj., & v. n.* } Fr. *vierge*;

VIRGINAL, *adj., n. s., & v. n.* } Lat. *virgo*. A

VIRGINITY, *n. s.* } maid; a woman

unacquainted with man; any thing pure or untouched; the sign Virgo in the zodiac: as an adjective, befitting or like a virgin: to virgin is used by Shakspeare for to play the virgin: virginal is, maiden; becoming or pertaining to a virgin: as a noun substantive, a musical instrument: to strike or pat, as on the musical instrument so called: virginity is, maidenhead; state of being unacquainted with man.

On the earth more fair was never seen,  
Of chastity and honour virginal. *Færie Queens.*

This aspect of mine hath feared the valiant;

The best regarded virgins of our clime

I have loved it too.

What says the silver with her virgin hue? *Shakspeare.*

A kiss

Long as my exile, sweet as my revenge,

I carried from thee, my dear: and my true lip

Hath virgin'd it e'er since. *Id.*

Still virginall upon thy palm. *Id.*

Purity is a special part of this superstructure, restraining of all desires of the flesh within the known limits of conjugal or virginal chastity. *Hammond.*

Natural virginity of itself is not a state more acceptable to God; but that which is chosen in order to the conveniences of religion, and separation from worldly incumbrances. *Taylor.*

With ease a brother overcame

The formal decencies of virgin shame. *Cowley.*

Likest to Ceres in her prime,

Yet virgin of Proserpina from Jove. *Milton.*

VIRGIN ISLANDS, a cluster of islands in the West Indies, situated to the east of Porto Rico. They are upwards of twenty in number, but for

the most part desert and barren, and extend sixty miles in length, and upwards of thirty-six in breadth; but they are every way dangerous to navigators, though there is a basin in the midst of them of eighteen or twenty miles in length, and nine or twelve in breadth, in which ships may anchor, and be sheltered and landlocked from all winds, which is called the Bay of Sir Francis Drake, from his having passed through them to St. Domingo. The English and Danes divide most of them; but the Spaniards claim those near Porto Rico.

VIRGINIA, one of the United States of North America, is bounded north by Pennsylvania and Maryland; north-east by Maryland, from which it is separated by the Potomac; east by the Atlantic; south by North Carolina and Tennessee; west by Kentucky; and north-west by Ohio. It is 370 miles long, and 290, where widest, broad; containing about 64,000 square miles. The number of the militia, in 1817, amounted to 84,010.

The counties, population in 1810, and chief towns, are exhibited in the following table

| Counties.      | Population. | Chief Towns.    |
|----------------|-------------|-----------------|
| Accomack       | 15,743      | Drummond'twn    |
| Albermarle     | 18,268      | Charlottesville |
| Amelia         | 10,594      |                 |
| Amherst        | 10,548      | New Glasgow     |
| Augusta        | 14,308      | Staunton        |
| Bath           | 4,837       | Warm Springs    |
| Bedford        | 16,148      | Liberty         |
| Berkeley       | 11,479      | Martinsburg     |
| Botetourt      | 13,301      | Fincastle       |
| Brooke         | 5,843       | Wellsburg       |
| Brunswick      | 15,411      |                 |
| Buckingham     | 20,059      | New Canton      |
| Campbell       | 11,001      | Lynchburg       |
| Caroline       | 17,544      | Port Royal      |
| Charles City   | 5,186       |                 |
| Charlotte      | 13,161      | Marysville      |
| Chesterfield   | 9,979       | Manchester      |
| Cumberland     | 9,992       | Cartersville    |
| Culpeper       | 18,967      | Fairfax         |
| Cabell         | 2,717       |                 |
| Dinwiddie      | 12,524      | Petersburg      |
| Elizabeth City | 3,608       | Hampton         |
| Essex          | 9,376       | Tappahannock    |
| Fauquier       | 22,689      | Warrentown      |
| Fairfax        | 13,111      | Centreville     |
| Fluvanna       | 4,775       | Columbia        |
| Frederick      | 22,574      | Winchester      |
| Franklin       | 10,724      | Rocky Mount     |
| Gloucester     | 10,427      |                 |
| Goochland      | 10,203      |                 |
| Grayson        | 4,941       | Greensville     |
| Greenbrier     | 5,914       | Lewisburg       |
| Greensville    | 6,858       | Hicksford       |
| Giles          | 3,745       |                 |
| Halifax        | 22,133      | South Boston    |
| Hampshire      | 9,784       | Romney          |
| Hanover        | 15,082      | Hanover         |
| Hardy          | 5,525       | Moorefields     |
| Harrison       | 9,958       | Clarksburg      |
| Henrico        | 9,945       | Richmond        |
| Henry          | 5,611       | Martinsville    |
| Isle of Wight  | 9,185       | Smithfield      |
| James City     | 9,094       | Williamsburg    |
| Jefferson      | 11,851      | Charlestown     |
| Kenhawa        | 3,866       | Charlestown     |
| King and Queen | 10,988      | Dunkirk         |



| Counties.       | Population. | Chief Towns.   |
|-----------------|-------------|----------------|
| King George     | 6,454       |                |
| King William    | 9,285       | Delaware       |
| Lancaster       | 5,592       | Kilmarnock     |
| Lee             | 4,694       | Jonesville     |
| Loudoun         | 21,338      | Leesburg       |
| Louisa          | 11,900      |                |
| Lunenburg       | 12,265      | Hungary        |
| Madison         | 8,381       | Madison        |
| Mathews         | 4,227       |                |
| Mecklinburg     | 18,453      | St. Tammany    |
| Middlesex       | 4,414       | Urbanna        |
| Monongalia      | 12,793      | Morgantown     |
| Monroe          | 5,444       | Uniontown      |
| Montgomery      | 8,409       | Christiansburg |
| Mason           | 1,991       | Point Pleasant |
| Nansemond       | 10,324      | Suffolk        |
| Nelson          | 9,684       |                |
| New Kent        | 6,478       | Cumberland     |
| Nicholas        |             |                |
| Norfolk county  | 13,679      | Norfolk        |
| Northampton     | 7,474       |                |
| Northumberland  | 8,308       | Bridgetown     |
| Nottaway        | 9,278       |                |
| Ohio            | 8,175       | Wheeling       |
| Orange          | 12,323      | Staunardsville |
| Patrick         | 4,695       |                |
| Pendleton       | 6,239       | Franklin       |
| Pittsylvania    | 17,172      | Danville       |
| Powhatan        | 8,073       |                |
| Preston         |             |                |
| Prince Edward   | 12,409      | Jamestown      |
| Princess Anne   | 9,498       | Kempsville     |
| Prince William  | 11,311      | Haymarket      |
| Prince George   | 8,050       |                |
| Randolph        | 2,854       | Beverly        |
| Richmond        | 6,214       |                |
| Rockbridge      | 10,318      | Lexington      |
| Rockingham      | 12,753      |                |
| Russell         | 5,316       | Franklin       |
| Shenandoah      | 13,646      | Woodstock      |
| Southampton     | 13,497      | Jerusalem      |
| Spotsylvania    | 13,296      | Fredericksburg |
| Stafford        | 9,830       | Falmouth       |
| Surry           | 6,855       | Cobham         |
| Sussex          | 11,362      |                |
| Tazewell        | 3,007       | Jeffersonville |
| Tyler           |             |                |
| Warwick         | 1,885       |                |
| Washington      | 12,136      | Abingdon       |
| Westmoreland    | 8,102       | Leeds          |
| Wood            | 3,036       | Newport        |
| Wythe           | 8,356       | Evansham       |
| York            | 5,187       | York           |
| Richmond City   | 9,735       |                |
| Norfolk Borough | 9,193       |                |
| Petersburg      | 5,668       |                |

Richmond is the metropolis of the state. The other most considerable towns are Norfolk, Petersburg, Lynchburg, Fredericksburg, Winchester, Portsmouth, Williamsburg, Staunton, and Wheeling. The bank of Virginia was established at Richmond in 1804, with branches at Norfolk, Petersburg, Fredericksburg, and Lynchburg. The Farmers' Bank of Virginia was established in 1812, at Richmond, with branches at the same places, and at Winchester in addition. The western bank of Virginia was established in 1817, at Wheeling, with permission to establish branches at Wellsburg, Morgantown, and Clarksburg. The bank of the valley in Virginia was established in 1817, at

Winchester, with permission to establish a branch at some one of the counties of Jefferson, Berkley, Hampshire, or Hardy.

Four colleges have been established in this state; William and Mary College, at Williamsburg; Washington College, at Lexington; Hampden Sidney College, in Prince Edward county; and Central College, at Charlottesville. There are academies at Abingdon, Clarksburg, Danville, Lynchburg, New London, Martinsburg, Norfolk, Petersburg, Staunton, Winchester, Dinwiddie C. H., Gloucester C. H., near Halifax C. H., in Albermarle county, also Potomac Academy in Prince George county, Rappahannock Academy in Caroline county, and Rumford Academy in King William county. The literary fund of Virginia, which consists of moneys received from the United States, for military expenses during the late war, and fines, penalties, forfeitures, escheats, &c., amounted in stock and funds, December 10th, 1817, to 90,380,831 dollars; the interest of which, according to the president and directors, in their report to the general assembly, would be 61,534,49 dollars per annum. Of this sum 45,000 dollars are appropriated, by the act of the legislature, to the support of primary schools, and 15,000 dollars to the university which has been projected, and which, it is expected, will soon be established.

The denominations of Christians in Virginia, are Baptists, who according to the Baptist Report, in 1817, had 314 congregations; Presbyterians, who had in 1818, forty-one ordained ministers, and several licentiates; Episcopalians, who had in 1817 thirty-four ministers; Friends, who had in 1812 thirty-three meetings. There are also many Methodists, some Lutherans, Roman Catholics, Jews, &c.

The legislature is composed of a senate and house of representatives. The senate consists of twenty-four members, chosen for four years, by districts, one-fourth being chosen every year. The representatives are chosen annually, two from each county, and one from several cities and boroughs. The governor is chosen annually by a joint ballot of both houses, and can hold the office but three years in seven. The principal rivers are the Potomac, Shenandoah, Rappahannock, Mataponi, Pamunky, York, James, Rivanna, Appomatox, Elizabeth, Nottaway, Meherrin, Staunton, Kenhawa, Ohio, Sandy, Monongahela, and Cheat. The staple productions are wheat and tobacco. The exports of the state, for the year ending September 20th, 1817, amounted to 5,621,442 dollars; and the value of the manufactures, in 1810, was estimated at 15,263, 473 dollars.

The state of Virginia may be divided into four zones, essentially differing from one another. The first extending from the sea-coast to the termination of tide at Fredericksburg, Richmond, &c., is low and flat, sometimes fenny, sometimes sandy, and on the margin of rivers composed of a rich loam covered with a luxuriant and even rank vegetation. This part is unhealthy in the months of August, September, and October. The next division extends from the head of tide-water to the Blue Ridge. The surface near the tide-water is level; higher up the rivers it becomes swelling; and near the mountains it is often abrupt and broken. The soil is divided into sections of very unequal quality, parallel to each other, and extending throughout the state. The parallel of Chesterfield, Henrico, Hanover, &c., is a thin, sandy, and, except on the

**rivers**, an unproductive soil. That of Goochland, Cumberland, prince Edward, Halifax, &c., is generally fertile. Fluvanna, Buckingham, Campbell, Pittsylvania, again, are poor; and Culpeper, Orange, Albermarle, Bedford, &c., a rich, though frequently a stony, broken soil, on a substratum of tenacious and red colored clay. The population of this section, especially near the mountains, is more robust and healthy than that of any other part of the state. The scenery of the upper part is highly picturesque and romantic. There is a vein of limestone running through Albermarle, Orange, &c. Pit coal of a good quality is found within twenty miles above Richmond, on James river. The third division is the valley between the Blue Ridge, and North and Alleghany mountains; a valley which extends, with little interruption, from the Potomac, across the state, to North Carolina, and Tennessee, narrower, but of greater length, than either of the preceding divisions. The soil is a mould formed on a bed of limestone. The surface of the valley is sometimes broken by sharp and solitary mountains detached from the general chain, the sides of which, nearly bare, or but thinly covered with blasted pines, form disagreeable objects in the landscape. The bed of the valley is fertile, producing good crops of Indian corn, wheat, rye, oats, buck wheat, hemp, flax, timothy, and clover. The farms are smaller than in the lower parts of Virginia, and the cultivation is better. Here are few slaves.—This valley has inexhaustible mines of excellent iron ore. Chalk is found in Botetourt county. The fourth division extends from the Alleghany mountains to the river Ohio; a country wild and broken, in some parts fertile, but generally lean or barren; but having mines of iron, lead, coal, salt, &c.—The soil of a great proportion of the county of Randolph, and the adjacent counties in the north-west part of the state, is of an excellent quality, producing large crops of grain. The surface is uneven and hilly. The county is well watered, is excellent for grazing, and has a very healthy climate.

There are many mineral springs in Virginia. The hot and warm springs of Bath county, the sweet springs of Monroe county, the sulphur springs of Greenbrier and of Montgomery counties, and the baths of Berkeley county, are much frequented.—The most remarkable curiosities are the Natural Bridge, the passage of the Potomac at Harper's Ferry, the cataract of Falling Spring, and several caves.

**VIRGO**, in astronomy, one of the signs or constellations of the zodiac. See **ASTRONOMY**.

**VIRIATHUS**, a shepherd of Lusitania, who, from heading a gang of robbers, came to command a powerful army. He made war against the Romans for fourteen years with success. Many generals, and Pompey himself, were beaten. Cæpio being sent against him, meanly bribed his servants to murder him.

**VIRIDOMARUS**, a young man of great power among the Ædui. Cæsar greatly honored him, but he fought at last against the Romans.

**VIRILE**, *adj.* } Fr. *virilité*; Latin *virilitas*.  
**VIRILITY**, *n. s.* } Manly; belonging to manhood: manhood; character of man.

The lady made generous advances to the borders of *virility*. *Rambler*.

The great climacterical was past, before they begat children, or gave any testimony of their *virility*; for none begat children before the age of sixty-five. *Browne*.

**VIRIPLACA**, a goddess among the Romans, who presided over the peace of families.

**VIRMIL'ION**, *n. s.* Properly **VERMILION**, which see. A red color.

Ægle, the fairest Nais of the flood,  
With a *virnilion* dye his temples stained. *Roscommon*.

**VIRTUE**, *n. s.* } Latin *virtus*. Power;  
**VIRTUELESS**, *adj.* } efficacy; excellence; valor;  
**VIR'TUOUS**, } particularly moral  
**VIR'TUOUSLY**, *adv.* } power or excellence:  
**VIR'TUOUSNESS**, *n. s.* } Milton speaks of an order  
**VIR'TUAL**, *adj.* } of angelic beings under  
**VIR'TUALLY**, *adv.* } this name: the adjectives,  
**VIR'TUATE**, *v. a.* } adverb, and noun substantive following, follow each of these senses: *virtual* means having real, though unseen or unacknowledged, efficacy: the adverb corresponding: *virtuate*, to make efficacious (not used).

Jesus, knowing that *virtus* had gone out of him, turned him about. *Mark*.

Many other adventures are intermeddled; as the love of Britomert, and *virtuousness* of Belphebe; and the lasciviousness of Helenora. *Spenser*.

Out of his hand  
That *virtuous* steel he rudely snatched away. *Id.*

In sum, they taught the world no less *virtuously* how to die, than they had done before how to live. *Hooker*.

Trust to thy single *virtue*; for thy soldiers  
Took their discharge. *Shakespeare*.

All blest secrets,  
All you unpublished *virtues* of the earth,  
Be aidant and remediate. *Id.*

They that mean *virtuously*, and yet do so,  
The devil their *virtue* tempts not, they tempt heaven. *Id.*

In Belmont is a lady,  
And she is fair, and fairer than that word,  
Of wondrous *virtues*. *Id.*

Some observe that there is a *virtuous* bezoar, and another without *virtue*; the *virtuous* is taken from the beast that feedeth where there are theriacal herbs; and that without *virtue*, from those that feed where no such herbs are. *Bacon*.

Heat and cold have a *virtual* transition, without communication of substance. *Id.*

Before her gates, hill-wolves and lions lay;  
Which, with her *virtuous* drugs, so tame she made,  
That wolf, nor lion, would one man invade. *Chapman*.

She moves the body, which she doth possess;  
Yet no part toucheth, but by *virtue's* touch. *Davies*.

Some would make those glorious creatures *virtueless*.  
*Hakewill*.

They are *virtually* contained in other words still continued. *Hammond*.

Nor from gray hairs authority doth flow,  
Nor from bald heads, nor from a wrinkled brow;  
But our past life, when *virtuously* spent,  
Must to our age those happy fruits present. *Denham*.

He owned the *virtuous* ring and glass. *Milton*.  
Thrones, dominations, principedoms, *virtues*, powers. *Id.*

What she wills to do or say,  
Is wisest, *virtuous*est, discreetest, best. *Id.*

Every kind that lives,  
Fomented by his *virtual* power and warmed. *Id.*

Neither an actual or *virtual* intention of the mind,  
but only that which may be gathered from the outward acts. *Stillingfleet*.

Nor love is always of a vicious kind,  
But oft to *virtuous* acts inflames the mind. *Dryden*.

The ladies sought around  
For *virtuous* herbs. *Id.*

The coffeeman has a little daughter four years old,  
who has been *virtuously* educated. *Addison*.



If there's a power above us,  
And that there is, all nature cries aloud  
Through all her works, he must delight in *virtue*,  
And that which he delights in must be happy. *Id.*

Remember all his *virtues*,  
And shew mankind that goodness is your care. *Id.*  
They are not sure by *virtue* of syllogism, that the  
conclusion certainly follows from the premises. *Locke.*  
This they shall attain, partly in *virtue* of the promise  
made by God: and partly in *virtue* of piety.

*Virtue* only makes our bliss below. *Atterbury.*  
A winged *virtue* through the' ethereal sky *Pope.*  
From orb to orb unweari'd dost thou fly. *Titchel.*  
Religion, *virtue*, truth, whate'er we call  
A blessing—freedom is the pledge of all. *Cowper.*  
'Tis to the *virtues* of such men, man owes  
His portion in the good that heaven bestows. *Id.*

**VIRTUE**, in ethics, a term used in various signifi-  
cations. In general it denotes the power, or the  
perfection of any thing, whether natural or super-  
natural, animate or inanimate, essential or accessory.  
But, in its more proper or restrained sense, *virtue*  
signifies a habit, which improves and perfects  
the possessor and his actions. See MORAL PHI-  
LOSOPHY.

**VIRTUOSO**, *n. s.* Ital. *virtuoso*. A man skilled  
in antique or natural curiosities; or in the fine  
arts.

Methinks those generous *virtuosi* dwell in a higher  
region than other mortals. *Glanville.*

*Virtuoso*, the Italians call a man who loves the noble  
arts and is a critick in them. And, amongst our French  
painters, the word *virtueux* is understood in the same  
signification. *Dryden.*

This building was beheld with admiration by the  
*virtuosi* of that time. *Tatler.*

Showers of rain are now met with in every water-  
work; and the *virtuosos* of France covered a little vault  
with artificial snow. *Addison.*

**VIRULENT**, *adj.* } Fr. *virulent*; Lat. *viru-*  
**VIRULENCE**, *n. s.* } *lentus*. Poisonous; venom-  
**VIRULENCY**. } ous: hence malignant; bit-  
ter of spirit: the noun substantive corresponding.

Disputes in religion are managed with *virulency* and  
bitterness. *Decay of Piety.*

It instils into their minds the utmost *virulence*, in-  
stead of that charity which is the perfection and orna-  
ment of religion. *Addison.*

**VIRULENT**, a term applied to any thing that yields  
a virus; that is a contagious or malignant pus.

**VISAGE**, *n. s.* French *visage*; Ital. *visaggio*.  
Face; countenance; look.

His *visage* was so marred more than any man's. *Isaiah.*

Phoebe doth behold  
Her silver *visage* in the watery glass,  
Decking with liquid pearl the bladed grass. *Shakspeare.*

With hostile frown,  
And *visage* all inflamed, first thus began. *Milton.*

Love and beauty still that *visage* grace;  
Death cannot fright 'em from their wonted place. *Waller.*

**VISCERA**, in anatomy, a term signifying the  
same with entrails; including the heart, liver,  
lungs, spleen, intestines, and other inward parts  
of the body. See ANATOMY, Index.

**VISCID**, *adj.* } Lat. *viscidus*. Viscid and  
**VISCIDITY**, *n. s.* } viscous mean glutinous; te-  
**VISCOSITY**, } nacious: the noun substan-  
**VISCOUS**, *adj.* } tives corresponding.

Holly is of so *viscous* a juice as they make birdlime  
of the bark. *Bacon.*

A tenuous emanation, or continued effluvia, after  
some distance, retraceth unto itself, as is observable in  
drops of syrups and seminal *viscosities*. *Browne.*

The air, being mixed with the animal fluids, deter-  
mines their condition as to rarity, density, *viscosity*, te-  
nuity. *Arbuthnot.*

Catharticks of mercurials precipitate the *viscidities* by  
their stypticity. *Floyer.*

**VISCONTI** (John Baptist Anthony), an Italian  
antiquary, born at Vernazza, in 1722, was educated  
at Rome by an uncle, a painter, and who designed  
his nephew for that profession. But the latter pre-  
ferred the study of antiquities, and purchased the  
office of apostolic notary. Becoming connected  
with the celebrated Winckelmann, he succeeded him,  
in 1768, in the station of prefect or commissary of  
antiquities; and Clement XIV., on his elevation to  
the papacy, having formed the design of founding  
a new museum in the Vatican, the execution of the  
plan was entrusted to Visconti. Among the relics  
of former ages brought to light was the tomb of  
the Scipios, relative to which Visconti published  
Letters and Notices in the Roman Anthology; he  
was the author also of some other archaeological  
memoirs. His death took place September 2, 1784.  
He was appointed editor of the Museum Pio-Cle-  
mentinum, but the text accompanying the engrav-  
ings of that work was written by his son.

**VISCONTI** (Ennius Quirinius), eldest son of the  
preceding, was born at Rome, November 1, 1751,  
and studied under his father. At three years and  
a half old he was able to read Greek and Latin, in  
which he sustained at this period a public exami-  
nation. His subsequent progress was not less re-  
markable; in 1764 he translated from Greek into  
Italian verse the Hecuba of Euripides. He  
studied the canon and Roman law, and in 1771  
took the degree of doctor: soon after he was made  
a papal chamberlain and sub-librarian of the Vati-  
can. Having however formed an attachment to a  
lady, whom he wished to marry, he refused to enter  
into holy orders; in consequence of which he was  
through the interference of his father deprived of  
his post. A reconciliation, however, subsequently  
took place.

**VISCOUNT**, *n. s.* } Latin *vicecomes*. A title  
**VISCOUNTESS**. } of nobility: the lady of a  
viscount.

*Viscount* signifies as much as sheriff; between which  
two words there is no other difference, but that the one  
comes from our conquerors the Normans, and the other  
from our ancestors the Saxons. *Viscount* also signifies  
a degree of nobility next to an earl, which is an old  
name of office, but a new one of dignity, never heard  
of among us till Henry VI. his days. *Concell.*

**VISCOUNT** (Vice Comes), was anciently an officer  
under an earl, to whom, during his attendance at  
court, he acted as deputy to look after the affairs  
of the county. Now a viscount is created by  
patent as an earl is; his title is Right Honorable  
his mantle is two doublings and a half of plain fu-  
and his coronet has only a row of pearls close to the  
circle.

**VISCUM**, in botany, a genus of plants of the  
class diœcia, order tetrandria, and in the natural  
system arranged under the forty-eighth order, ag-  
gregatæ. The male calyx is quadripartite; the an-  
thers adhere to the calyx; the female calyx consists  
of four leaves; there is no style; the stigma is  
obtusè. There is no corolla; the fruit is a berry  
with one seed. There are nine species; only one  
of which is a native of Britain, viz. *V. album*, or

common mistletoe. It is a shrub, growing on the bark of several trees, particularly the oak; the leaves are conjugate and elliptical, the stem forked; the flowers whitish in the axæ of the leaves. This plant was reckoned sacred among the Druids. See DRUIDS.

VISHNOU, that person in the triad of the Brahmins who is considered as the preserver of the universe. Brahma is the creator and Siva the destroyer; and these two, with Vishnou, united in some inexplicable manner, constitute Brahme, or the supreme god of the Hindoos. See POLYTHEISM, and MYTHOLOGY.

VISIBLE, *adj.* & *n. s.* } Fr. *visible*; Lat. *visibilis*. Perceptible or  
VISIBLY, *adv.* } discovered by the eye;  
VISIBILITY, *n. s.* }  
apparent; open: perceptibility by the eye: visibly corresponds with the adjective: visibility is the state or quality of being visible; conspicuousness.

*Visibles* work upon a looking-glass, which is like the pupil of the eye; and audibles upon the places of echo, which resemble the cavern of the ear. Bacon.

The factions at court were greater, or more visible than before. Clarendon.

On this mount he appeared; under this tree

Stood visible; and I Here with him at this fountain talked. Milton.

They produced this as an instance against the perpetual visibility of the church, and he brings it to prove that it ceased to be a true church. Stillingfleet.

A long series of ancestors shews the native lustre with great advantage; but, if he degenerate from his line, the least spot is visible on ermine. Dryden.

In these, the visibility and example of our virtues will chiefly consist. Rogers.

VISIERS, an officer or dignitary in the Ottoman empire, whereof there are two kinds; one called by the Turks vizier-azem, that is, grand visier, is the prime minister of state in the whole empire. He commands the army in chief, and presides in the divan or great council. Next to him are six other subordinate visiers, called visiers of the bench; who officiate as his counsellors or accessors in the divan.

VISION, *n. s.* } Fr. *vision*; Latin  
VISIONARY, *adj.* & *n. s.* } *visio*. Sight; the faculty of seeing: an  
VISIONIST, *n. s.* } unusual or supernatural appearance; a spectre; dream; something shown in a dream: visionary is imaginary; affected by phantoms or mere imaginations; a person apt to be so affected is termed a visionary or visionist.

The day seems long, but night is odious;  
No sleep, but dreams; no dreams, but visions strange. Sidney.

Last night the very gods shewed me a vision.

This account exceeded all the noctambuli or visionaries I have met with. Shakspeare. Turner.

Vision in the next life is the perfecting of faith in this; or faith here is turned into vision there, as hope into enjoying. Hammond.

Him God vouchsafed

To call by vision from his father's house. Milton.

His dream returns; his friend appears again;  
The murderer's come; now help, or I am slain!  
'T was but a vision still, and visions are but vain. Dryden.

The idea of any thing in our mind no more proves the existence of that thing, than the visions of a dream make a true history. Locke.

Pictures, propagated by motion along the fibres of the optick nerves into the brain, are the cause of vision. Newton.

No more these scenes my meditation aid,  
Or lull to rest the visionary maid.

Pope.

The lovely visionary gave him perpetual uneasiness  
Female Quixote.

VISION, in optics, the act of seeing or perceiving external objects by means of the organ of sight, the eye. See ANATOMY, and METAPHYSICS.

VISIT, *v. a., v. n., & n. s.* } Fr. *visiter*; Lat.  
VISITABLE, *adj.* } *visito*. To go to  
VISITANT, *n. s.* } see; salute, par  
VISITATION, } ticularly with a pre  
VISITATORIAL, *adj.* } sent; survey with  
VISITER, *n. s.* } authority; send  
VISITOR. } good or evil judi-

cially: as a verb neuter keep up intercourse of a domestic or personal nature: the act of going to see or visiting: visitable is liable to be visited: visitant, the person visiting: visitation, the act or object of visiting; communication; judicial inflection: visitatorial, belonging to a judicial visitation: visitor or visitor, he who comes to see another; he who inspects or surveys judicially.

Samson visited his wife with a kid. Judges.

When God visiteth, what shall I answer him? Job.

Thou shalt be visited of the Lord with thunder. Isaiah.

The most comfortable visitations God hath sent men from above, hath taken especially the times of prayer as their most natural opportunities. Hooker.

You must go visit the lady that lies in.—I visit her with my prayers; but I cannot go thither. Shakspeare.

What would you with the princess;—

—Nothing but peace and gentle visitation. Id.

Here's ado to lock up honesty and honour from the access of gentle visitors. I.

The visitors expelled the orthodox; they, without scruple or shame, possessed themselves of their colleges. Wotton.

That which thou dost not understand when thou redest, thou shalt understand in the day of thy visitation. Taylor.

Consumptives of this degree entertain their visitors with strange rambling discourses of their intent of going here and there. Harvey.

One visit begins an acquaintance; and, when the visitant comes again, he is no more a stranger. South.

To him you must your sickly state refer;

Your charter claims him as your visitor. Garth.

All hospitals built since the Reformation are visitable by the king or lord chancellor. Ayliffe.

Some will have it, that an archdeacon does of common right execute their visitatorial power. Id. Parergon.

Virgins visited by angel powers. Pope.

Whatever abuses have crept into the universities, might be reformed by strict injunctions to the visitors and heads of houses. Swift.

In a designed or accidental visit, let some one take a book, which may be agreeable, and read in it. Watts.

The devil visits idle men with his temptations; God visits industrious men with his favours. Mat. Henry.

VISIVE, *adj.* Fr. *visif*; Lat. *visus*. Formed in the act of seeing.

This happens when the axis of the visive cones, diffused from the object, fall not upon the same plane but that which is conveyed into one eye is more depressed or elevated than that which enters the other. Broune's Vulgar Errors.

VISNEA, in botany, a genus of plants in the class of dodecandria, and order of trigynia.

VISNOMY, *n. s.* Corrupted from physiognomy. Face; countenance. Not in use

Twelve gods do sit around in royal state  
And Jove in midst with awful majesty,



To judge the strife between them stirred late :  
Each of the gods by his like *visnomy*  
Each to be known, but Jove above them all,  
By his great looks and power imperial. *Spenser.*

VISION, in zoology. See MUSTELA.

VISOR, *n. s.* } Fr. *visiere*. This word is va-  
VISORED, *adj.* } riously written, visard, visar, vi-  
sor, vizard, vizor. I prefer visor, as nearest the  
Latin *visus*, and concurring with visage, a kindred  
word.—Johnson. A mask used to disfigure and  
disguise. See VIZARD. Visored is marked ; dis-  
guised.

This loutish clown is such that you never saw so ill-  
favoured a *visar* ; his behaviour such, that he is beyond  
the degree of ridiculous. *Sidney.*

But that thy face is, *visor*-like, unchanging,  
Made impudent with use of evil deeds,  
I would essay, proud queen, to make thee blush.

*Shakspeare.*

Hence with thy brewed enchantments, foul deceiver !  
Hast thou betrayed my credulous innocence  
With visored falsehood and base forgery ? *Milton.*

The Cyclops, a people of Sicily, remarkable for  
cruelty, might, perhaps, in their wars use a head piece,  
or visor. *Broome.*

UIST, NORTH, one of the western islands of  
Scotland, in Inverness-shire, between Harris on the  
north and Benbecula on the south ; from which last  
it is separated by a narrow channel, which is dry  
at low water. It is of a very irregular form ; of  
about twenty miles long, and from twelve to eighteen  
miles broad. That part of the coast which is  
washed by the Atlantic is inaccessible, except in  
very calm weather. On the east coast, however,  
it has several safe harbours, but here the ground is  
hilly and barren. The west and north parts are  
low and level. The cultivated parts are pleasant  
and fertile. The lakes abound with trouts, and are  
frequented by flocks of wild fowls. About 2000  
black cattle and 1500 or 1600 small horses are  
pastured on the hills. About 1200 tons of kelp  
are made annually. The island belongs to lord  
M'Donald.

UIST, SOUTH, another of the Hebrides, in Inver-  
ness-shire, lies between Barry on the south and  
Benbecula on the north ; thirty-two miles long, and  
from nine to ten broad. The surface and soil are  
similar to those of North Uist. The number of  
sheep is 7000, of horses 1000, and of black cattle  
700 : 1100 tons of kelp are made. These islands  
belong to M'Donald of Clanranald and M'Donald  
of Boisdale.

VISTA, *n. s.* Ital. *vista*. View ; prospect  
through an avenue.

In St. Peter's, when a man stands under the dome,  
if he looks upwards, he is astonished at the spacious  
hollow of the cupola, that makes one of the beautifullest  
*vistas* that the eye can pass through. *Addison.*

The finished garden to the view

Its *vistas* opens, and its alleys green. *Thomson.*

VISTULA, a river of Poland, rises in Austrian  
Silesia, at the foot of the Carpathians, and, flowing  
eastward, enters Poland at the southern frontier,  
passing the ancient capital Cracow ; and, after bath-  
ing the walls of Sandomir, it receives the San. Its  
course, now northward, brings it, after traversing a  
considerable tract of country, to Warsaw ; at some  
distance from which it receives the Bug, a river  
almost equal to itself in magnitude, and bringing  
with it the waters of the south-east and north of  
Poland. The Vistula, now become one of the great  
rivers of Europe, holds a northward course, inclin-

ing to the west, passes the towns of Plock and  
Culm ; and after flowing several hundred miles,  
with a wide channel, and undiminished volume,  
divides, like the Rhine, into two branches, of  
which one, called the Nogat, and another the Old  
Vistula, flow eastwards to the Frische Haff, while  
the largest stream preserves the name of Vistula,  
and, turning to the westward, falls into the Baltic at  
Dantzic. Flowing generally through a level  
country the Vistula is navigable many hundred  
miles, beginning so far up as Cracow.

VISUAL, *adj.* Fr. *visuel*. Used in sight ; ex-  
ercising, or instrumental to, sight.

An eye thrust forth so as it hangs a pretty distance  
by the *visual* nerve, hath been without any power of  
sight ; and yet, after being replaced, recovered sight.

*Bacon.*

Then purged with euphrasy and rue  
The *visual* nerve ; for he had much to see. *Milton.*

VITAL, *adj.*

VITALITY, *n. s.*

VITALLY, *adv.*

VITALS, *n. s.*

Lat. *vitalis*. Contributing  
or necessary to life ; contain-  
ing or being the seat of life ;  
essential ; likely to live (un-  
usual) : vitality is, living power : the adverb agrees  
with the adjective : and vitals mean parts essential  
to life.

Let not Bardolph's *vital* thread be cut  
With edge of penny cord, and vile reproach. *Shakspeare.*

Know, grief's *vital* part

Consists in nature not in art. *Bishop Corbet.*

On the watery calm

His brooding wings the spirit of God outspreads ;

And *vital* virtue infused, and *vital* warmth

Throughout the fluid mass. *Milton.*

The silent, slow, consuming fires,

Which on my inmost *vitals* prey,

And melt my very soul away. *Philips.*

On the rock a scanty measure place

Of *vital* flax, and turn the wheel apace. *Dryden.*

For the security of species produced only by seed,  
providence hath endued all seed with a lasting *vitality*,  
that if by any accident it happen not to germinate the  
first year, it will continue its fecundity twenty or thirty  
years. *Ray.*

The dart flew on, and pierced a *vital* part. *Pope.*

VITAL, in physiology, an appellation given to  
whatever ministers principally to the constituting  
or maintaining life in the bodies of animals ; thus  
the heart, lungs, and brain, are called vital parts ;  
and the operations of these parts, by which the life  
of animals is maintained, are called vital functions.

VITALIANO (Donati), naturalist, was born in  
Padua, 1717, wrote *Saggio della flora naturale*  
dell' Adriatico in 1750. His Sardinian majesty  
appointed him professor of botany and natural  
history at Turin. He sent him to visit Egypt,  
Syria, Palestine, Arabia, and the East Indies, to  
make observations and to collect the rarest produc-  
tions of nature. The greatest part of this journey  
he performed ; but died at Bassora in 1763. He  
left in MS. two volumes in folio.

VITELLARY, *n. s.* Lat. *vitellus*. The place  
where the yolk of the egg swims in the white.

A greater difficulty in the doctrine of eggs is, how  
the sperm of the cock attaineth into every egg ; since the  
*vitellary* or place of the yolk is very high. *Broome.*

VITELLUS, emperor of Rome. See ROME.

VITELLUS, the yolk of an egg. See EGG.

VITEPSK, a government of the north-west of  
European Russia, lying to the east of Courland,  
and south of Livonia, between long. 26° 30' and 31°  
50' E., lat. 55° 3' and 57° N. Its territorial extent



is about 20,000 square miles, and its population nearly 750,000, partly Poles, Lithuanians, and Letonians; partly also Russians, Germans, and Jews. The surface is generally flat. Hemp and flax are raised; and, the pastures being generally good, cattle are reared and exported. There is also some traffic in the article of honey and bees' wax. This province contains several lakes. Its chief rivers are the Dwina, the Ula, and the Viteba.

VITEPSK, a city of European Russia, and the capital of the government of the same name, stands on the Dwina, at the influx of the Viteba, which divides it into two parts. The town is surrounded by a wall, but made no regular defence in the campaign of 1812, having been alternately occupied by French and Russians. Population 13,000. 322 miles south of Petersburg, and 297 west of Moscow.

VITERBO, a considerable town in the States of the Church, the capital of a delegation of the same name, is situated at the foot of a high mountain. This is supposed to have been the ancient Volturna, or capital of the Etruria; by others to have been built by the Lombards. It is surrounded with a wall, and has a number of round towers. Its streets are broad and well paved, its market-place neat, and several of the principal buildings constructed with taste. About half a mile from the town is a small lake, called Bulicame, the waters of which emit a sulphureous smell, and appear to be in a state of continual agitation. Population 10,000. Twenty-seven miles N. N. E. of Civita Vecchia, and thirty-eight N. W. of Rome.

VITEX, in botany, the agnus castus, or chaste tree, a genus of plants in the class of didynamia, and order of angiospermia; ranking, by the natural system, in the thirty-ninth order, personate.

VITIATE, *v. a.* } Lat. *vitio*. To deprave;  
VITIATION, *n. s.* } spoil; make less pure: the noun substantive corresponding.

The foresaid extenuation of the body is imputed to the blood's *vitiation* by malign putrid vapors smoking throughout the vessels. *Harvey on Consumption.*

The organs of speech are managed by so many muscles, that speech is not easily destroyed, though often somewhat *vitiated* as to some particular letters. *Holder.*

The sun in his garden gives him the purity of visible objects, and of true nature before she was *vitiated* by luxury. *Evelyn's Kalendar.*

This undistinguished complaisance will *vitiate* the taste of the readers, and misguide many of them in their judgments, where to approve and where to censure.

*Garth.*

VITILITIGATION, *n. s.* From *vitiligitate*. Contention; cavillation.

I'll force you, by right ratiocination,  
To leave your *vitiligation*.

*Hudibras.*

VITIOUS, *adj.* } Fr. *vicieux*; Lat. *vitiosus*.  
VITIOUSLY, *adv.* } Corrupt; wicked; opposite  
VITIUSNESS, *n. s.* } to virtuous; and used both  
VITIOSITY. } of persons and practices:  
all the derivatives correspond.

When we in our *vitiousness* grow hard,  
The wise gods seal our eyes.

*Shakspeare.*

Witness the' irreverent son  
Of him who built the ark; who, for the shame  
Done to his father, heard his heavy curse,  
'Servant of servants,' on his *vitious* race.

*Milton.*

Here, from the *vitious* air and sickly skies,  
A plague did on the dumb creation rise.  
What makes a governor justly despised is *vitiousness*  
'And ill morals. Virtue must tip the preacher's tongue  
And the ruler's sceptre with authority.

*Dryden.*

*South.*

No troops abroad are so ill disciplined as the English; which cannot well be otherwise, while the common soldiers have before their eyes the *vitious* example of their leaders. *Swift.*

VITIS, in botany, a genus of the class pentandria, order monogynia; and in the natural system arranged under the fortieth order, personate. The petals cohere at the top, and are withered; the fruit is a berry with five seeds. There are eleven species, the most important of which is *V. vinifera*, or the common vine, which has naked, lobed, sinuated leaves. There are many varieties, all propagated either from layers or cuttings, the former of which is greatly practised in England, but the latter is much preferable. In choosing the cuttings you should always take such shoots of the last year's growth as are strong and well ripened; these should be cut from the old vine, just below the place where they were produced, taking a knot, or piece of the two years' wood, to each, which should be pruned smooth; then you should cut off the upper part of the shoots, so as to leave the cutting about sixteen inches long. When the cuttings are made, if they are not then planted, they should be placed with their lower part in the ground, in a dry soil, laying some litter upon their upper parts to prevent them from drying: in this situation they may remain till the beginning of April; when they should be taken out and washed from the filth they have contracted; and, if very dry, should stand with their lower parts in the water six or eight hours, which will distend their vessels, and dispose them for taking root. If the ground be strong, and inclined to wet, open a trench where the cuttings are to be planted, which should be filled with lime rubbish, the better to drain off the moisture: then raise the borders with fresh light earth about two feet thick, so that it may be at least a foot above the level of the ground: then open the holes at about six feet distance from each other, putting one good strong cutting into each hole, which should be laid a little sloping that their tops may incline to the wall; but it must be put in so deep as that the uppermost eye may be level with the surface of the ground. Having placed the cutting in the ground, fill up the hole gently, pressing down the earth close about it, and raise a little hill just upon the top of the cutting, to cover the upper eye quite over, which will prevent it from drying. Nothing more is necessary but to keep the ground clear from weeds until the cuttings begin to shoot; at which time look after them carefully, and rub off any small shoots, fastening the first main shoot to the wall, continue to look over these once in three weeks during the summer, constantly rubbing off lateral shoots which are produced. The Michaelmas following, if the cuttings have produced strong shoots, prune them down to two eyes. In the spring, after the cold weather is past, gently dig up the borders to loosen the earth; but be very careful in doing this not to injure the roots; also raise the earth up to the stems of the plants, so as to cover the old wood, but not so deep as to cover either of the eyes of the last year's wood. After this they will require no farther care until they begin to shoot; then rub off all weak dangling shoots, leaving no more than the two produced from the two eyes of the last year's wood, which should be fastened to the wall. From this time till the vines have done shooting, look them over once in three weeks or a month, rub off all



lateral shoots as they are produced, and fasten the main shoots to the wall as they are extended in length; about the middle or latter end of July it will be proper to nip off the tops of these two shoots, which will strengthen their lower eyes. As soon as the leaves begin to drop in autumn, prune these young vines again, leaving three buds to each of the shoots, provided they are strong: otherwise it is better to shorten them down to two eyes if they are good; for it is a very wrong practice to leave much wood upon young vines, or to leave their shoots too long, which greatly weakens the roots; then fasten them to the wall, spreading them out horizontal each way, that there may be room to train the new shoots the following summer, and in the spring the borders must be digged as before. The uses of the fruit of the vine for making wine, &c., are well known. The vine was introduced by the Romans into Britain, and appears formerly to have been very common. From the name of vineyard yet adhering to the ruinous sites of our castles and monasteries, there seems to have been few in the country but what had a vineyard belonging to them. The county of Gloucester is particularly mentioned by Maimsbury, in the twelfth century, as excelling all the rest of the kingdom in the number and goodness of its vineyards. In the earlier periods the Isle of Ely was expressly denominated the Isle of Vines by the Normans. Vineyards are frequently noticed in the descriptive accounts of Doomsday Book; and those of England are even mentioned by Bede as early as the commencement of the eighth century. Doomsday book exhibits a particular proof that wine was made in England during the period preceding the conquest. And after the conquest the bishop of Ely appears to have received at least three or four tuns of wine annually, as tythes, from the produce of the vineyards in his diocese; and to have made frequent reservations in his leases of a certain quantity of wine for rent. A plot of land in London, which now forms East Smithfield and some adjoining streets, was withheld from the religious house within Aldgate by four successive constables of the Tower, in the reigns of William II., Henry I., and Stephen, and made by them into a vineyard. In the old accounts of rectorial and vicarial revenues, and in the old registers of ecclesiastical suits concerning them, the tythe of wine is an article that frequently occurs in Kent, Surrey, and other counties. And the wines of Gloucestershire, within a century after the conquest, were little inferior to the French in sweetness. The beautiful region of Gaul, which had not a single vine in the days of Cæsar, had numbers so early as the time of Strabo. The south of it was particularly stocked with them; and they had even extended themselves into the interior parts of the country: but the grapes of the latter did not ripen kindly. France was famous for its vineyards in the reign of Vespasian, and even exported its wines into Italy. The province of Narbonne was then covered with vines; and the wine-merchants of the country were remarkable for all the knavish dexterity of our modern brewers, tinging it with smoke, coloring it, as it was suspected, with herbs and noxious dyes, and even adulterating the taste and appearance with aloes. And as our first vines would be transplanted from Gaul, so most probably were those of the Allobroges in Franche Compté. These were peculiarly fitted for cold countries. They

ripened even in the frosts of advancing winter. And they were of the same color, and seem to have been of the same species, as the black Muscadines of the present day, which have lately been tried in the island, and found to be fittest for the climate. These were certainly brought into Britain a little after vines had been carried over all the kingdoms of Gaul, and about the middle of the third century, when the numerous plantations had gradually spread over the face of the latter, and must naturally have continued their progress into the former. The Romans, even nearly to the days of Lucullus, were very seldom able to regale themselves with wine. Very little was then raised in the compass of Italy. And the foreign wines were so dear that they were rarely produced at an entertainment; and, when they were, each guest was indulged only with a single draught. But in the seventh century of Rome, as their conquests augmented the degree of their wealth, and enlarged the sphere of their luxury, wines became the object of particular attention. Many vaults were constructed, and good stocks of liquor deposited in them. And this naturally gave encouragement to the wines of the country. The Falernian rose immediately into great repute; and a variety of others, that of Florence among the rest, succeeded it about the close of the century. And the more westerly parts of the European continent were at once subjected to the arms, and enriched with the vines, of Italy.

**VITREOUS**, *adj.* French, *vitré*; Lat. *vitreus*. Glassy; consisting of or resembling glass.

The hole answers to the pupil of the eye; the crystalline humour to the lenticular glass; the dark room to the cavity containing the *vitreous* humour, and the white paper to the retina. *Ray on the Creation.*

When the phlegm is too viscous, or separates into too great a quantity, it brings the blood into a morbid state: this viscous phlegm seems to be the *vitreous* petuile of the ancients. *Arbuthnot.*

**VITREOUS HUMOR OF THE EYE.** See **ANATOMY**.

**VITREOUS SPAR.** See **CHEMISTRY**.

**VITRIFY**, *v. a. & v. n.*

**VITRIFICATE**, *v. a.*

**VITRIFICATION**, *n. s.* } Fr. *vitrifier*; Lat. *vitrum* and *facio*. To change into glass; become glass or glassy: vitrificate has also the former signification, and vitrification corresponds.

We have metals *vitricated*, and other materials, besides those of which you make glass. *Bacon.*

Metals will *vitriify*; and perhaps some portion of the glass of metal *vitricated*, mixed in the pot of ordinary glass metal, will make the whole mass more tough. *Id.*

Upon the knowledge of the different ways of making minerals and metals capable of *vitrication*, depends the art of making counterfeit or fictitious gems. *Boyle.*

Chymists make vessels of animal substances calcined, which will not *vitriify* in the fire; for all earth which hath any salt or oil in it will turn to glass. *Arbuthnot.*

**VITRIFICATION**, in chemistry. See **CHEMISTRY** and **GLASS-MAKING**.

**VITRIOL**, *n. s.*

**VITRIOLATE**, *adj.*

**VITRIOLATED**,

**VITRIOLIC**,

**VITRIOLOUS**,

} Fr. *vitriol*; Lat. *vitriolum*. A sulphuric acid with an earthy or metallic base. See **CHEMISTRY** and **SULPHURIC ACID**. Vitriolate or vitriolated is impregnated with vitriol: vitriolic or vitriolous, resembling or containing vitriol.

Iron may be dissolved by any tart, salt, or vitriolated water. *Bacon.*

Copperose of Mars, by some called salt of steel, made by the spirits of vitriol or sulphur, will, after ablutio, be attracted by the loadstone; and therefore



whether those shooting salts partake but little of steel, and be not rather the *vitriolous* spirits fixed unto salt by the effluvia or odour of steel, is not without good question. *Broune.*

The water having dissolved the imperfectly calcined body, the *vitriolate* corpuscles swimming in the liquor, by their occasions constituted little masses of *vitriol*, which gave the water they impregnated a fair *vitriolate* colour. *Boyle.*

These salts have somewhat of a nitrous taste, but mixed with a smatch of a *vitriolic*. *Grew.*

I rubbed it with the *vitriol*-stone. *Wiseman.*

**VITRIOLIC ACID.** See SULPHURIC ACID and CHEMISTRY.

**VITRUVIUS POLLO** (Marcus), a very celebrated Roman architect, was, according to the common opinion, born at Verona, and lived in the reign of Augustus. His treatise on architecture is extant, of which there are several English translations.

**VITRY**, or **VITRY LE FRANÇOIS**, a town of France, in Champagne, has a bridge over the Marne, which here becomes navigable for barges. Its trade is in corn, wood, and the cotton and other manufactures of the town. Vitry is surrounded by a wall, and though built chiefly of wood, has a pleasant appearance; its largest square being neat and regular, and its principal church built in the Italian style. The addition of *Le François* to its name is derived from Francis I., in whose reign it was built. It was the scene of important military operations in 1814. Population 7000. Twenty miles south-east of Chalons.

**VITTORIA**, a town of Spain, the chief place of Alava, stands partly on the slope of a hill, at the entrance of a beautiful valley, watered by the Zadora. It is surrounded by a wall, but is a scattered place. Here are, however, a few streets of tolerable width, and a square, with a fountain in the centre. The principal churches are those of the Carmelites and the Dominicans. Its trade consists chiefly in the transit between Castile and the northern provinces. This town, or rather neighbourhood, was the scene of a general engagement on 21st of June 1813, in which the French, under Jourdan, were defeated by lord Wellington. Population 6500. Twenty-seven miles south of Bilbao.

**VITUPERATION**, *n. s.* Latin, *vituperatio*. Blame; censure.

Such a writing ought to be clean, and free from any cavil or *vituperation* of rasure. *Ayliffe.*

**VIVACIOUS**, *adj.*

**VIVACIOUSNESS**, *n. s.* } Latin *vivax*. Long-lived; lively; sprightly: the noun substantives

**VIVACITY**, corresponding.

They are esteemed very hot in operation, and will, in a convenient air, survive some days the loss of their heads and hearts; so vigorous is their *vivacity*. *Boyle.*

He had a great *vivacity* in his countenance. *Dryden.*

**VIVE**, *adj.* Fr. *vif*; Lat. *vivus*. Lively; forcible; pressing. Obsolete.

By a *vive* and forcible persuasion, he moved him to a war upon Flanders. *Bacon.*

**VIVENCY**, *n. s.* Lat. *vivo*. Manner of supporting or continuing life or vegetation.

Although not in a distinct and indisputable way of *vivency*, or answering in all points the property of plants, yet in inferior and descending constitutions they are determined by seminalities. *Broune.*

**VIVERRA**, the weasel, a genus of quadrupeds belonging to the order of fere. They have six fore-teeth, the intermediate ones being shorter, and

more than three grinders, and the claws are exerted. There are twenty-seven species, the principal of which are, 1. *V. ichneumon*, with the tail tapering to a point, and the toes distant from each other; inhabits Egypt, Barbary, India, and its islands. It is there a most useful animal, being an inveterate enemy to the serpents and other noxious reptiles which infest the torrid zone, and is at present domesticated and kept in houses in India and in Egypt, and grows very tame. It sits up like a squirrel, and eats with its fore feet, catching any thing that is flung to it. Rumphius observes how skilfully it seizes the serpents by the throat so as to avoid receiving any injury; and Lucan beautifully describes the same address of this animal in conquering the Egyptian asp. 2. *V. vulpecula*, or stifling weasel, has a short slender nose; short ears and legs; black body, full of hair; the tail long, of a black and white color; length from nose to tail about eighteen inches. It inhabits Mexico, and perhaps other parts of America. This and some other species are remarkable for the pestiferous, suffocating, and most fetid vapor they emit from behind when attacked, pursued, or frightened; it is their only means of defence. Some turn their tail to their enemy and keep them at a distance by a frequent creptus; and others ejaculate their urine, tainted with the horrid effluvia, to the distance of eighteen feet. The pursuers are stopped with the terrible stench. Should any of this liquor fall into the eyes it almost occasions blindness; if on the clothes the smell will remain for several days in spite of all washing; they must even be buried in fresh soil in order to be sweetened. Dogs that are not true bred run back as soon as they perceive the smell; those that have been used to it will kill the animal; but are often obliged to relieve themselves by thrusting their noses into the ground. There is no bearing the company of a dog that has killed one for several days. Professor Kalm was one night in great danger of being suffocated by one that was pursued into a house where he slept; and it affected the cattle so that they bellowed through pain. Another, which was killed by a maidservant in a cellar, so affected her with the stench that she lay ill for several days; and all the provisions that were in the place were so tainted that the owner was obliged to throw them away. Notwithstanding this the flesh is reckoned good meat, and not unlike that of a pig; but it must be skinned as soon as killed and the bladder taken carefully out. It breeds in hollow trees, or holes under ground, or in clefts of rocks; climbs trees with great agility; kills poultry; eats eggs and young birds. 3. *V. zibetha*, or civet cat, has short rounded ears; the back and sides cinereous, tinged with yellow, marked with large dusky spots disposed in rows; the hair coarse; that on the top of the body longest standing up like a mane; the tail sometimes wholly black; sometimes spotted near the base; length, from nose to tail, about two feet three inches; the tail fourteen inches; the body pretty thick. It inhabits India, the Philippine Isles, Guinea, Ethiopia, and Madagascar. The famous drug musk, or civet, which is produced from an aperture between the privities and the anus, in both sexes, is secreted from certain glands. The persons who keep them procure the musk by scraping the inside of this bag, twice a week, with an iron spatula, and get about a drachm each time; but it is seldom sold



pure, being generally mixed with suet or oil to make it more weighty. The males yield the most, especially when they are previously irritated. They are fed, when young, with pap made of millet, with a little flesh or fish; when old with raw flesh. In a wild state they prey on fowl. These animals seem not to be known to the ancients; it is probable the drug was brought without their knowing its origin.

**VIVES, n. s.** A distemper among horses.

*Vives* is much like the strangles; and the chief difference is, that for the most part the strangles happen to colts and young horses while they are at grass.

*Farrier's Dictionary.*

**VIVID, adj.** } Lat. *vividus*. Lively; quick;

**VIVIDLY, adv.** } striking; sprightly: the ad-

**VIVIDNESS, n. s.** } verb and noun substantive corresponding.

The liquor, retaining its former *vivid* color, was grown clear again.

*Boyle.*

In the moon we can, with excellent telescopes, discern many hills and vallies, whereof some are more and some less *vividly* illustrated; and others have a fainter, others a deeper shade.

*Id.*

Body is a fit workhouse for sprightly, *vivid* faculties to exercise and exert themselves in.

*South.*

To make these experiments the more manifest, such bodies ought to be chosen as have the fullest and most *vivid* colors, and two of those bodies compared together.

*Newton.*

Where the genius is bright, and the imagination *vivid*, the power of memory may lose its improvement.

*Watts.*

**VIVIFY, v. a.** } Fr. *vivifier*; Lat. *vivus*

**VIVIFIC, adj.** } and *facio*. To make alive;

**VIVIFICATION, n. s.** } animate; endue with life: the adjective and noun substantive corresponding.

If that motion be in a certain order there followeth *vivification* and figuration.

*Bacon.*

Sitting on eggs doth *vivify*, not nourish.

*Id.*

Gut-worms, as soon as *vivified*, creep into the stomach for nutriment.

*Harvey on Consumptions.*

Without the sun's salutary and *vivific* beams, all motion would cease, and nothing be left but darkness and death.

*Ray.*

**VIVIPAROUS, adj.** Lat. *vivus* and *pario*. Bringing forth the young alive: opposed to *oviparous*.

Their species might continue, though they had been *viviparous*; yet it would have brought their individuals to very small numbers.

*More.*

If birds had been *viviparous*, the burthen of their womb had been so great and heavy, that their wings would have failed them.

*Ray.*

**VIX'EN, n. s.** Sax. *fixen*; Belg. *feeks*. Literally a she-fox; a scolding, quarrelsome woman.

*Vixen*, or *fixen*, is the name of a she-fox: otherwise applied to a woman whose nature and condition is thereby compared to a she-fox.

*Verstegan.*

O! when she's angry, she is keen and shrewd; She was a *vixen* when she went to school; And, though she be but little, she is fierce.

*Shaksp.*

See a pack of spaniels, called lovers, in a hot pursuit of a two-legged *vixen*, who only flies the whole loud pack, to be singled out by one.

*Wycherley.*

**VIZ, adv.** Lat. *videlicet*, by contraction. To wit; that is.

That which so oft by sundry writers, Has been applied to almost all fighters, More justly may be ascribed to this, Than any other warrior, viz. None ever acted both parts bolder, Both of a chieftain and a soldier.

*Hudibras.*

Let this be done relatively, viz. one thing greater or stronger, casting the rest behind, and rendering it less sensible by its opposition.

*Dryden.*

**VIZAGAPATAM**, a town on the sea-coast of the Northern Circars, Hindostan, the capital of a district of the same name. Lat. 17° 42' N., long. 83° 28' E. A river coming from the north, and turning short eastward to the sea, forms an arm of land one mile and a half in length, and 600 yards in breadth, nearly in the middle of which the fort is placed. The town is inconsiderable, the Europeans generally residing at Watloor, a village to the north of this harbour. During the ebb the surf is here considerable; and as European boats, for want of Massulah craft, are obliged frequently to go in, they should keep close to a steep hill, named the Dolphin's Nose, to escape being upset. The surrounding country is mountainous, and many of the hills wild, and destitute of vegetation. At Semachellum, near to this place, is a Hindoo temple of great fame and sanctity. The principal trading towns of this district are Vizagapatam and Bimlipatam.

**VIZARD, n. s. & v. a.** Fr. *visiere*. See **VISOR**. A mask used for disguise: to mask.

Degree being *vizarded*,

The unworthiest shews as fairly in the mask.

*Shaks.*

A lie is like a *vizard*, that may cover the face indeed, but can never become it.

*South.*

Ye shall know them by their fruits, not by their well or ill living; for they put on the *vizard* of seeming sanctity.

*Atterbury.*

**VIZ'IER, n. s.** Properly *wazir*. The prime minister of the Turkish empire. See **VISIER**.

He made him *vizier*, which is chief of all the bassas.

*Knolles's History of the Turks.*

This grand *vizier* presuming to invest

The chief imperial city of the west;

With the first charge compelled in haste to rise,

His treasure, tents, and cannon, left a prize.

*Waller.*

The **UKRAINE** is a former division of Russian Poland, which now forms the four governments of Kiev, Podolia, Poltava, and Charkov. It is situated between 48° and 52° of lat. N., corresponding to the parallels of the north of France and central part of England, but with a very different temperature. Wheat, oats, barley, and other products of our latitude, are raised with comparatively little labor, and the pastures are in many parts of great luxuriance. Fruits also are abundant, and the kermes, or Polish cochineal. The forests consist of oak, larch, and other valuable trees. The inhabitants, called *Malo Russians*, are said by Dr. Clarke to be less ignorant and backward than their eastern neighbours, but they are certainly doomed to great poverty. The chief town is Kiev, once the capital of the Russian dominions.

This province, situated between Russia and Poland, was the scene of repeated invasions, of which that by Charles XII. of Sweden, in 1709, terminated in the fatal battle of Poltava. The great natural feature of the country is the Dnieper, which intersects it in a winding direction from north to south, and affords a channel for the conveyance of products to the Black Sea.

**VLADIMIR**, a town and government of European Russia. The government contains 19,500 square miles, and 1,000,000 inhabitants. The town stands on the river Kliasma, the capital of a government or province, and a bishop's see. Population 3000. 112 miles east by north of Moscow, and 500 south-east of St. Petersburg.

ULCER, *n. s.*

ULCERATE, *v. a. & v. n.*

ULCERATION, *n. s.*

ULCEROUS, *adj.*

Fr. *ulcere*; Latin

*ulcus*. A continued

sore; not a new

wound: to ulcerate

is to disease with, or turn into ulcers: ulceration the act of doing so; the ulcer formed; a sore: ulcerous, afflicted with sores. See below.

My *ulcers* swell,

Corrupt and smell.

*Sandys's Paraphrase.*

Strangely visited people,

All swollen and *ulcerous*, he cures.

*Shakspeare.*

Some depend upon the intemperament of the part *ulcerated*; others upon the continual afflux of lacerative humours.

*Harvey.*

An *ulcerous* disposition of the lungs, and an *ulcer* of the lungs, may be appositely termed causes of a pulmonary consumption.

*Id.*

Intestine stone and *ulcer*, colick pangs.

*Milton.*

An acrid and purulent matter, mixeth with the blood in such as have their lungs *ulcerated*.

*Arbuthnot on Aliments.*

ULCER (*ulcus*, *eris*, *n.*; from *ελκος*, a sore), a purulent solution of continuity of the soft parts of an animal body. Ulcers may arise from a variety of causes, as all those which produce inflammation, from wounds, specific irritations of the absorbents, from scurvy, cancer, the venereal or scrofulous virus, &c. The proximate or immediate cause is an increased action of the absorbents, and a specific action of the arteries, by which a fluid is separated from the blood upon the ulcerated surface. They are variously denominated; the following is the most frequent division:—

1. The simple ulcer, which takes place generally from a superficial wound.

2. The sinuous, that runs under the integuments, and the orifice of which is narrow, but not callous.

3. The fistulous ulcer, or fistula, a deep ulcer with a narrow and callous orifice.

4. The fungous ulcer, the surface of which is covered with fungous flesh.

5. The gangrenous, which is livid, fætid, and gangrenous.

6. The scorbutic, which depends on a scorbutic acrimony.

7. The venereal, arising from the venereal disease.

8. The cancerous ulcer, or open cancer.

9. The carious ulcer, depending upon a carious bone.

10. The inveterate ulcer, which is of long continuance, and resists the ordinary applications.

11. The scrofulous ulcer, known by its having arisen from indolent tumors, by discharging a viscid, gluey matter, and by its indolent nature.

ULEABORG, an extensive province, situated to the north of Finland, and extending along the south coast of the gulf of Bothnia. After being long subject to Sweden, it forms, since 1809, a circle of the Russian province or government of Abo; but it extends also into Lapland, occupying the country between 63° 30' and 67° of N. lat.

ULEX, in botany, a genus of plants of the class of diadelphica, and order of decandria; and in the natural system arranged under the thirty-second order, papilionacæ. The calyx consists of two leaves quinquefentate: pod almost covered by the calyx. There are two species, one of which, *U. Europæus*, the furze, gorse, or whin, is a native of Britain; it is too well known to need description. Its uses, however, are many; as a fuel where wood and coals are scarce; and as hedge-wood upon

light barren land: its use as horse provender too seems to be fully proved, though not yet established. See FENCE.

ULIETEA, one of the Society Islands, in the South Pacific Ocean, wholly surrounded by reefs, interspersed with small islands, and forming several harbours. See SOCIETY ISLANDS.

ULIGINOUS, *adj.* Lat. *uliginosus*. Slimy; muddy.

The *uliginous* lacteous matter, taken notice of in the coral fishings upon the coast of Italy, was only a collection of the coralline particles. *Woodward.*

ULM, a considerable town and bishop's see of Wirttemberg, is situated on the banks of the Danube, where it receives the small river Blau, which flows through the town. It mostly consists of crooked streets, and of houses in the old German style, with a height of roof out of all proportion to the walls. Some of the streets, however, have well paved path-ways. Here is a large Gothic church, or minster, about 416 feet in length, and 160 in breadth; and several other churches are entitled to notice; as are the town-house, arsenal, theatre, barracks, and hospital. The prevailing religion is the Lutheran. Inhabitants 15,000. Forty-four miles south-east of Stuttgart.

ULMIN, in mineralogy, a name Dr. Thomson has given to a very singular substance lately examined by Klapproth. It differs essentially from every other known body, and must therefore constitute a new and peculiar vegetable principle. It exuded spontaneously from the trunk of a species of elm, which Klapproth conjectures to be the *ulmus nigra*, and was sent to him from Palermo in 1802. 1. In its external characters it resembles gum. It was solid, hard, of a black color, and had considerable lustre. Its powder was brown. It dissolved readily in the mouth, and was insipid. 2. It dissolved speedily in a small quantity of water. The solution was transparent, of a blackish-brown color, and, even when very much concentrated by evaporation, was not in the least mucilaginous or ropy: nor did it answer as a paste. In this respect ulmin differs essentially from gum. 3. It was completely insoluble both in alcohol and ether. When alcohol was poured into the aqueous solution, the greater part of the ulmin precipitated in light brown flakes. The remainder was obtained by evaporation, and was not sensibly soluble in alcohol. The alcohol by this treatment acquired a sharpish taste. 4. When a few drops of nitric acid were added to the aqueous solution, it became gelatinous, lost its blackish-brown color, and a light brown substance precipitated. The whole solution was slowly evaporated to dryness, and the reddish-brown powder which remained was treated with alcohol. The alcohol assumed a golden yellow color; and, when evaporated, left a light brown, bitter, and sharp resinous substance. 5. Oxymuriatic acid produced precisely the same effects as nitric. Thus it appears that ulmin, by the addition of a little oxygen, is converted into a resinous substance. In this new state it is insoluble in water. This property is very singular. Hitherto the volatile oils were the only substances known to assume the form of resins. That a substance soluble in water should assume the resinous form with such facility is very remarkable. 6. Ulmin when burnt emitted little smoke or flame, and left a spongy but firm charcoal, which, when burnt in the open air, left only a little carbonate of potash behind.



**ULMUS**, in botany, a genus of plants belonging to the class of pentandria, and order of digynia; arranged in the natural system under the fifty-third order, scabridæ. The calyx is quinquefid; there is no corolla. The fruit is a dry, compressed, membranaceous berry. There are three species; one of which is a native of Britain. 1. *U. campestris*, common elm. The leaves are rough, oval, pointed, doubly serrated, unequal at the base. Bark of the trunk cracked and wrinkled. Fruit membranous. 2. *U. montana*, the wych elm, or witch hazel, is generally reckoned a variety of this species. All the sorts of elm may be propagated either by layers or suckers taken from the roots of the old trees. The elm delights in a stiff strong soil. It is observable, however, that here it grows comparatively slow. In light land, especially if it be rich, its growth is very rapid; but its wood is light, porous, and of little value, compared with that which grows upon strong land; which is of a closer stronger texture, and, at the heart, will have the color, and almost the heaviness and the hardness of iron.

**ULSTER**, a province of Ireland, containing the northern counties of Donegal, Londonderry, Antrim, Tyrone, Fermanagh, Monaghan, Armagh, Down, and Cavan.

**ULSTER**, a county of the United States, in New York, bounded north by Greene county, east by Hudson, south by Orange county, south-west by Sullivan county, and north-west by Delaware county. The surface is broken by the Catskill mountains, but well watered, the Hudson forming the eastern boundary, and the small streams being numerous. This county produces marble of a superior fineness and hardness. Limestone, slate, marl, and iron-ore; lead, native alum, plumbago, coal, peat, and a variety of pigments. A large proportion of the houses are of a blue lime-stone, abundant here. The early inhabitants of this county were German and Dutch families; and it was settled at a very early period of our history. In 1662 Kingston had a minister; and the county records commence about that time.

**ULSWATER**, a lake of Westmoreland and Cumberland, ten miles north of Ambleside, and fourteen south-west of Penrith. Its length is about eight miles, and it is of a sufficient depth to breed char; and abounds with a variety of other fish. Trout of upwards of thirty pounds weight are said to have been taken in it. One of the amusements on this lake consists in the firing of guns, or small cannon, in certain situations. The report is reverberated among the adjacent rocks and caverns, with every variety of sound.

**ULTIMATE**, *adj.* } Lat. *ultimus*. Intended  
**ULTIMATELY**, *adv.* } in the last resort; last in a  
**ULTIMITY**, *n. s.* } train of consequences: the  
 adverb and noun substantive correspond.

Alteration of one body into another, from crudity to perfect concoction, is the *ultimity* of that process.

*Bacon.*

Many actions apt to procure fame are not conducive to this our *ultimate* happiness.

*Addition.*

The *ultimate* allotment of God to men is really a consequence of their own voluntary choice, in doing good or evil.

*Rogers's Sermons.*

**ULTRAMARINE**, *n. s. & adj.* Lat. *ultra* and *marinus*. A fine blue color used in painting; beyond the sea; foreign.

Others, notwithstanding they are brown, cease not to be soft and faint, as the blue of *ultramarine*. *Dryden.*

**ULVA**, in botany, laver, a genus of plants of the

class of cryptogamia, and order of algæ. The fructification is enclosed in a diaphanous membrane. There are seventeen species: twelve of which are British plants. They are all sessile, and without roots, and grow in ditches and on stones along the sea coast. None of them are applied to any particular use different from the rest of the algæ, except perhaps the *U. umbilicalis*, which in England is pickled with salt and preserved in jars, and afterwards stewed and eaten with oil and lemon juice. This species called in English the navel laver, is flat, orbicular, sessile, and coriaceous.

**ULUA**, **JUAN DE**, an island and fort of Mexico, in the bay of Vera Cruz; the fort is very strong, and is supplied with an excellent light-house.

**ULVERSTONE**, a market-town in Lonsdale hundred, Lancashire, situate near the Leven, eighteen miles N. N. W. of Lancaster, and 270 N. N. W. of London. The streets are spacious and clean, and the town rapidly increasing. By means of a canal, lately cut, vessels of 250 tons can approach the town, by which a considerable traffic is carried on in the exportation of iron-ore, limestone, and corn; in the neighbourhood are several furnaces and smelting houses. The church stands in a field, at a small distance from the town, and is a white building with a square tower, containing three bells. Here is a small theatre, an assembly-room, and a public library. Market on Monday. Fairs, Holy Thursday, and Thursday after the 23d of October.

**ULUG BEIG**, a Persian prince and learned astronomer, was descended from the famous Tamerlane, and reigned at Samarcand about forty years; after which he was murdered by his own son in 1449. His catalogue of the fixed stars, rectified for the year 1434, was published at Oxford by Mr. Hyde, in 1665, with learned notes. Mr. Hudson printed in the English Geography Ulug Beig's Tables of the Longitude and Latitude of Places; and Mr. Greaves published in Latin his *Astronomical Epochas*, at London, in 1650. See *ASTRONOMY*.

**ULYSSES**, king of Ithaca, the son of Laertes, and father of Telemachus, and one of those heroes who contributed most to the taking of Troy. After the destruction of that city, he wandered for ten years; and at last returned to Ithaca, where, with the assistance of Telemachus, he killed Antinous and other princes who intended to marry his wife Penelope, and seize his dominions. He at length resigned the kingdom to his son Telemachus; and was killed by Telegonus, his son by Circe, who did not know him. See *CIRCE*. The hero is the subject of the *Odyssey*.

**UMBELLA**, an umbel, in botany, a species of receptacle; or rather a mode of flowering, in which a number of slender foot-stalks proceed from the same centre, and rise to an equal height, so as to form an even and generally round surface at top. See *BOTANY*.

**UMBELLATÆ**, the name of a class in Ray's and Tournefort's methods, consisting of plants whose flowers grow in umbels, with five petals that are often unequal, and two naked seeds that are joined at top and separated below. They constitute the forty-fifth order of Linnæus's Fragments of a Natural Method. See *BOTANY*, Index.

**UMBELLIFEROUS PLANTS** are such as have their tops branched and spread out like an umbrella.

**UM'BER**, *n. s.* } Lat. *umbræ*. A dark or sad

**UM'BERED**, *adj.* } color: umbered is shaded; clouded.

I'll put myself in poor and mean attire,  
And with a kind of *umber* smirch my face. *Shaks.*

From camp to camp, through the foul womb of  
night,

Fire answers fire; and through their paly flames

Each battle sees the others *umbered* face. *Id.*

*Umbra* is very sensible and earthy; there is nothing  
but pure black which can dispute with it. *Dryden.*

The *umbers*, ochres, and minerals found in the fis-  
sures, are much finer than those found in the strata.

*Woodward.*

UMBER, or UMBRE, in natural history, a fossil  
brown or blackish substance, used in painting; so  
called from Ombria, the ancient name of the duchy  
of Spoleto in Italy, whence it was first obtained;  
diluted with water, it serves to make a dark brown  
color, usually called with us a hair color. Dr.  
Hill and Mr. da Costa consider it as an earth of  
the ochre kind. It is found in Egypt, Italy, Spain,  
and Germany; in Cyprus also it is found in large  
quantities; but what is brought into England is  
principally from different parts of the Turkish do-  
minions. But it might be found in considerable  
plenty also in England and Ireland, if properly  
looked after, several large masses of it having been  
thrown up in digging on Mendip hills in Somerset-  
shire, and in the county of Wexford in Ireland: it  
is also sometimes found in the veins of lead ore  
both in Derbyshire and Flintshire.

UMBILICAL, *adj.* Fr. *umbilicale*; Lat. *um-  
bilicus*. Belonging to the navel.

Birds are nourished by *umbilical* veins, and the navel  
is manifest a day or two after exclusion.

*Brown's Vulgar Errors.*

In a calf, the *umbilical* vessels terminate in certain  
bodies divided into a multitude of carnosous papillæ, re-  
ceived into so many sockets of the cotyledons growing  
on the womb. *Ray.*

UMBILICAL, among anatomists, something re-  
lating to the umbilicus or navel.

UMBILICAL CORD, or the navel-string, the hol-  
low ligament by which an embryo communicates  
with the mother, and draws nourishment from her.  
This must be carefully cut by the midwife or  
accoucheur, after parturition, as negligence or in-  
attention to this is often the cause of fatal ruptures.  
See MIDWIFERY.

UM'BO, *n. s.* Lat. *umbo*. The pointed boss, or  
prominent part of a buckler.

Thy words together tied in small banks,

Close as the Macedonian phalanx;

Or like the *umbo* of the Romans,

Which fiercest foes could break by no means. *Swift.*

UM'BRAGE, *n. s.*

UMBRAGEOUS, *adj.* } Fr. *ombrage*; Lat.

UMBRAGEOUSNESS, *n. s.* } *umbræ*. Shade; skreen

of trees; shadow;  
dark appearance: hence suspicion; offence; anger;  
revenge: the adjective and noun substantive follow  
chiefly the literal sense.

Although he went on with the war, yet it should be  
but with his sword in his hand, to bend the stiffness of  
the other party to accept of peace: and so the king  
should take no *umbrage* of his arming and prosecution.

*Bacon.*

Walk daily in a pleasant, airy, and *unbrageous* garden.

*Harvey.*

The rest are *umbrages* quickly dispelled; the astro-  
loger subjects liberty to the motions of heaven.

*Brumhall against Hobbes.*

O, might I here

In solitude live savage; in some glade

Obscured, where highest woods, impenetrable

To star or sun-light, spread their *umbrage* broad,

And brown as evening! *Milton's Paradise Lost.*

The stealing shower is scarce to patter heard

Beneath the *umbrageous* multitude of leaves.

*Thomson.*

UM'BREL, *n. s.* } Latin *umbræ*. A skreen

UM'BRELLA, } used to keep off the sun or  
rain.

I can carry your *umbrella*, and fan your ladyship.

*Dryden.*

Good housewives,

Defended by the *umbrella's* oily shed,

Safe through the wet on clinking pattens tread. *Gay.*

UMBRIATICO, a town of Italy, in the south-  
west of the kingdom of Naples, in Calabria Citra,  
situated near the river Lipuda, about six miles  
from the coast of the gulf of Tarento. It is the see  
of a bishop, and is said to contain between 9000  
and 10,000 inhabitants. Thirty-five miles east of  
Cosenza, and forty-two N. N. W. of Squillace.

UMBROSITY, *n. s.* Lat. *umbræsus*. Shadi-  
ness; exclusion of light.

Oiled paper becometh more transparent, and admits  
the visible rays with much less *umbrosity*.

*Brown's Vulgar Errors.*

UMMERAPOORA, the capital of the Birman  
empire, stands on the shores of a romantic lake,  
seven miles in length, by one and a half in breadth,  
and at a short distance from the left bank of the  
Irrawaddy. It is fortified and regularly laid out  
as an exact square. The streets are wide, and in-  
tersect each other at right angles. In the centre  
stands the royal palace, which consists of a number  
of wooden buildings of various forms, having domes  
covered with gilt copper, and the whole surround-  
ed by an enclosure of teak planks, having four  
gates. It may be half a mile in circumference.  
The city is divided into four distinct quarters, each  
of which is governed by its own officer; and no  
town in Europe can boast of a better police. The  
circumference of the city is about two miles.

UM'PIRE, *n. s.* Minshieu after Skinner de-  
rives this word from Fr. *un père*, a father. Mr.  
Thomson suggests the Ital. *uomo pari*, or Lat. *homo  
par*. An arbitrator; one who, as a common friend,  
decides disputes: sometimes taken simply for a  
judge; the referee of arbitrators.

Just death, kind *umpire* of men's miseries,

With sweet enlargement doth dismiss me hence.

*Shakespeare.*

But as swayne unkent fed on the plaines,

And made the echo *umpire* of my straines. *Brown.*

Among those persons, going to law was utterly a  
fault, being ordinarily on such accounts as were too  
light for the hearing of courts and *umpires*. *Kettellwell.*

UN, a Saxon privative or negative particle an-  
swering to Lat. *in*; Gr. *a*; Belg. *on*; and Dan. *un*;  
is placed almost at will before adjectives and ad-  
verbs. All the instances of this kind cannot be  
inserted; we preserve, after Johnson, a number  
sufficient to explain it. He says, *in* and *un* may  
be thus distinguished: to words merely English  
we prefix *un*, as unfit; to words borrowed in the  
positive sense, but made negative by ourselves,  
prefix *un*, as generous, ungenerous. When *v*  
borrow both words, we retain the Latin or Fren-  
*in*, as elegant, inelegant; politic, impolitic. Be-  
fore substantives, if they have the English termina-  
tion *ness*, it is proper to prefix *un*, as unfitness,  
ungraciousness. If they have the Latin or French  
terminations in *uæ*, *ice*, or *ence*, and for the most



part if they end in *ty*, the negative *in* is put before them, as unapt, unaptness, inapitude; unjust, injustice; imprudence; unfaithful, unfaithfulness, infidelity'. We take the liberty, in this extensive collection of compounds, to be generally content with one or two good illustrations.

**UNABASH'ED**, *adj.* From abashed. Not shamed; not confused by modesty.

Earless on high, stood unabashed Defoe,  
And Tutchin fragrant from the scourge below. *Pope.*

**UNA'BLE**, *adj.* From able. Not having ability. With *to* before a verb, and *for* before a noun.

The Amalekites set on them, supposing that they had been weary, and *unable* to resist.

*Raleigh's History of the World.*

The prince, *unable* to conceal his pain,  
Gazed on the fair,  
And sighed, and looked, and sighed again. *Dryden.*

**UNABOL'ISHED**, *adj.* From abolished. Not repealed; remaining in force.

The number of needless laws *unabolished*, doth weaken the force of them that are necessary. *Hooker.*

**UNACCEPTABLE**, *adj.* From acceptable. Not pleasing; not such as is well received.

The marquis was at that time very *unacceptable* to his countrymen. *Clarendon.*

Every method for deterring others from the like practices for the future must be *unacceptable* and displeasing to the friends of the guilty. *Addison.*

**UNACCES'SIBLENESS**, *n. s.* From accessibleness. State of not being to be attained or approached.

Many excellent things are in nature, which, by reason of the remoteness from us, and *unaccessibility* to them, are not within any of our faculties to reprehend. *Hale.*

**UNACCOM'MODATED**, *adj.* From accommodated. Unfurnished with external convenience.

*Unaccommodated* man is no more than such a poor, bare, forked animal as thou art. *Shakspeare.*

**UNACCOM'PANIED**, *adj.* From accompanied. Not attended

Seldom one accident, prosperous or adverse, cometh *unaccompanied* with the like. *Hayward.*

**UNACCOM'PLISHED**, *adj.* From accomplished. Unfinished; incomplete.

Beware of death: thou canst not die unpunished,  
And leave an *unaccomplished* love behind.

Thy vows are mine. *Dryden.*

**UNACCOUNTABLE**, *adj.* From accountable. Not explicable; not to be solved by reason; not reducible to rule; not subject.

I shall note difficulties, which are not usually observed, though *unaccountable*. *Glanville.*

There has been an *unaccountable* disposition of late, to fetch the fashion from the French. *Addison.*

The Chinese are an *unaccountable* people, strangely compounded of knowledge and ignorance.

*Baker's Reflections on Learning.*

**UNAC'CURATE**, *adj.* From accurate. Not exact. Inaccurate is more usual.

Galileo used an *unaccurate* way, defined the air to be in weight to water but as one to four hundred. *Boyle.*

**UNACCUSTOMED**, *adj.* From accustomed. Not used; not habituated; new; taking to.

I was chastised as a bullock *unaccustomed* to the yoke. *Jer. xxxi.*

I'll send one to Mantua,  
Where that same banished runaway doth live,  
Shall give him such an *unaccustomed* dram,  
That he shall soon keep Tibalt company. *Shakspeare.*

The necessity of air, to the most of animals *unaccustomed* to the want of it, may best be judged of by the following experiments. *Boyle.*

An old word ought never to be affixed to an *unaccustomed* idea, without just and evident necessity.

*Watts's Logic.*

**UNACKNOW'LEDGED**, *adj.* From acknowledge. Not owned.

The fear of what was to come from an unknown, at least an *unacknowledged* successor to the crown, clouded much of that prosperity. *Clarendon.*

**UNACQUAINTED**, *adj.* } From acquainted.  
**UNACQUAINT'ANCE**, *n. s.* } Not known; or

usual; not familiarly known: the noun substantive corresponding.

She greatly grew amazed at the sight,  
And the *unacquainted* light began to fear. *Spenser.*

Festus, an infidel, a Roman, one whose ears were *unacquainted* with such matter, heard him, but could not reach unto that whereof he spake. *Hooker.*

Where else

Shall I inform my *unacquainted* feet,  
In the blind mazes of this tangled world? *Milton.*

The first is an utter *unacquaintance* with his master's designs, in these words: the servant knoweth not what his master doth. *South.*

**UNACTIVE**, *adj.* From active. Not brisk; not lively; not busy. Inactive is more usual.

Silly people commend *unactive* children, because they make no noise, nor give them any trouble. *Locke.*

**UNACTUATED**, *adj.* Not actuated. The peripatetick matter is a mere *unactuated* power. *Glanville.*

**UNADMIR'ED**, *adj.* Not regarded with honor. Oh! had I rather *unadmired* remained

In some lone isle, or distant northern land,  
Where the gilt chariot never marks the way! *Pope.*

**UNADOR'ED**, *adj.* Not worshipped. Nor was his name unheard, or *unadored*,

In ancient Greece. *Milton.*

**UNADORN'ED**, *adj.* Not decorated; not embellished.

But hoary winter, *unadorned* and bare,  
Dwells in the dire retreat, and freezes there. *Addison.*

**UNADVENT'UROUS**, *adj.* Not adventurous. The wisest, unexperienced, will be ever

Timorous and loth, with novice modesty  
Irresolute, unhardy, *unadventurous*. *Milton.*

**UNADVISED**, *adj.* } From advised. Im-  
**UNADVISEDLY**, *adv.* } prudent; indiscreet; with-

out thought: the adverb corresponding.

A strange kind of speech unto Christian ears; and such as, I hope, they themselves do acknowledge *unadvisedly* uttered. *Hooker.*

Madam, I have *unadvised*  
Delivered you a paper that I should not. *Shakspeare.*

**UNADULTERATED**, *adj.* Genuine; not spoiled by spurious mixtures.

I have only discovered one of those channels, by which the history of our Saviour might be conveyed pure and *unadulterated*. *Addison.*

**UNAFFECTED**, *adj.* Real; open; not hypocritical; not moved.

Men divinely taught, and better teaching  
The solid rules of civil government,  
In their majestic, *unaffected* stile,

Than all the oratory of Greece and Rome. *Milton.*

They bore the king  
To lie in solemn state, a publick sight:  
Groans, cries, and howlings fill the crowded place,  
And *unaffected* sorrow sat on every face. *Dryden.*

**UNAFFLICTED**, *adj.* Free from trouble. My *unafflicted* mind doth feed

On no unholy thoughts for benefit. *Daniel.*

**UNAGREE'ABLE**, *adj.* Inconsistent; unsuitable.

Advent'rous work! yet to thy power and mine  
Not *unagreeable*, to found a path  
Over this main, from hell to that new world. *Milton.*

UNAIDED, *adj.* Not assisted; not helped.  
The congregated college have concluded,  
That labouring art can never ransom nature  
From her *unaidable* estate. *Shakespeare.*

Their beloved earl of manchester appeared now as  
: *unapplicable* to their purposes as the other. *Clarendon.*

UNAIM'ING, *adj.* Having no particular direc-  
tion.

The noisy culverin, o'ercharged, lets fly,  
And bursts, *unaiming*, in the rended sky;  
Such frantick flights are like a madman's dream,  
And nature suffers in the wild extreme. *Gronville.*

UNAKING, *adj.* Not feeling or causing pain.  
Shew them the' *unaking* scars which I would hide,  
As if I had received them for the hire  
Of their breath only. *Shakespeare.*

UNALIENABLE, *adj.* Not to be transferred.  
Hereditary right should be kept sacred, not from any  
*unalienable* right in a particular family, but to avoid the  
consequences that usually attend the ambition of com-  
petitors. *Swift.*

UNALLAYED', *adj.* Not impaired by bad  
mixtures.

*Unallayed* satisfactions are joys too heavenly to fall  
to many men's shares on earth. *Boyle.*

UNALLIED', *adj.* Having no common nature  
or relation, not congenial.

He is compounded of two very different ingredients,  
spirit and matter; but how such *unallied* and dispro-  
portioned substances should act upon each other, no  
man's learning yet could tell him. *Collier on Pride.*

UNALTERED, *adj.* } Not changed; not  
UNALTERABLE, } changeable: the de-  
UNALTERABLY, *adv.* } rivatives correspond-  
UNALTERABLENESS, *n. s.* } ing.

It was thought in him an unpardonable offence to  
alter any thing; in us intolerable, that we suffer any  
thing to remain *unaltered*. *Hooker.*

The fixt *unalterable* laws,  
Settling the same effect on the same cause. *Creech.*  
Retain *unalterably* firm his love intire.

*Milton's Paradise Lost.*  
This happens from the *unalterableness* of the corpus-  
cles which constitute and compose those bodies.

UNAMA'ZED, *adj.* Not astonished; free from  
astonishment. *Woodward.*

Though at the voice much marvelling; at length  
Not *unamaz'd*, she thus in answer spake. *Milton.*

UNAMBITIOUS, *adj.* Free from ambition.  
My humble muse, in *unambitious* strains,  
I aints the green forests, and the flowery plains.

*Pope.*  
I am one of those *unambitious* people, who will love  
you forty years hence. *Id.*

UNAMENDABLE, *adj.* Lat. *inemendabilis*.  
Not to be changed for the better.

He is the same man; so is every one here that you  
know: mankind is *unamendable*. *Pope.*

UNAMIABLE, *adj.* Not raising love.  
Nor are the *unamiable*, whose tops

o heaven aspire. *Philips.*  
Those who represent religion in an *unamiable* light  
are like the spies sent by Moses to make a discovery of  
the land of promise, when, by their reports, they dis-  
courage the people from entering upon it.

*Amos's Spectator.*  
UNANALYSED, *adj.* Not resolved into sim-  
ple parts.

Some large crystals of refined and *unanalys'd* nitre  
appeared to have each of them six flat sides. *Boyle.*

UNANCHORED, *adj.* Not anchored.

A port there is, inclosed on either side,  
Where ships may rest, *unanchored* and untied. *Pope.*

UNANELED, *adj.* Un and knell. Without  
the bell rung. A very doubtful illustration fol-  
lows.

Thus was I, sleeping, by a brother's hand  
Cut off, even in the blossoms of my sin,  
Unhousel'd, *unanointed*, *unaneled*. *Shakespeare.*

UNANIMATED, *adj.* Not enlivened; not vi-  
vified.

Look on those half lines as the imperfect products  
of a hasty muse: like the frogs in the Nile, part kin-  
dled into life, and part a lump of *unanimated* matter.  
*Dryden.*

UNANIMOUS, *adj.* } French *unanime*; Lat.  
UNANIMOUSLY, *adv.* } *unanimis*. Being of one  
UNANIMITY, *n. s.* } mind; agreeing in de-  
sign or opinion: the adverb and noun substantive  
correspond.

They went to meet  
So oft in festivals of joy, and love  
*Unanimous*, as sons of one great sire,  
Hymning the eternal Father. *Milton's Paradise Lost.*

An honest party of men, acting with *unanimity*, are  
of infinitely greater consequence than the same party  
aiming at the same end by different views. *Addison.*

This particular is *unanimously* reported by all the  
ancient Christian authors. *Id.*

UNANOINTED, *adj.* Not anointed: hence,  
according to the Romish practice, not prepared  
for death by extreme unction.

Thus was I, sleeping, by a brother's hand  
Cut off, even in the blossom of my sin,  
Unhousel'd, *unanointed*, *unaneled*. *Shakespeare.*

UNANSWERABLE, *adj.* } Not to be re-  
UNANSWERABLY, *adv.* } futed: the abverb  
UNANSWERED, *adj.* } corresponding: un-  
answered, not replied to; not confuted.

All these reasons, they say, have been brought, and  
were hitherto never answered: besides a number of  
merriments and jests *unanswered* likewise. *Hooker.*

This is a manifest and *unanswerable* argument.  
*Raleigh.*

UNAPPALL'ED, *adj.* Not daunted; not im-  
pressed by fear.

Infernal ghosts  
Environed thee; some howled, some yelled, some  
shrieked;  
Some bent at thee their fiery darts; while thou  
Satest *unappalled* in calm and sinless peace. *Milton.*

As a lion, *unappalled* with fear,  
Springs on the toils, and rushes on the spear. *Dryden.*

UNAPPAR'ELLED, *adj.* Not dressed; not  
clothed.

Till our souls be *unapparelled*  
Of bodies, they from bliss are banished. *Donne.*

UNAPPARENT, *adj.* Obscure; not visible.

Thy potent voice he hears,  
And longer will delay to hear thee tell  
His generation, and the rising birth  
Of nature, from the *unapparent* deep. *Milton.*

UNAPPEASEABLE, *adj.* } Not to be paci-  
UNAPPEASED', } fied; implacable.  
not pacified.

Sacrifice his flesh,  
That so the shadows be not *unappeased*. *Shakespeare.*

I see thou art implacable; more deaf  
To prayers than winds to seas; yet winds to seas  
Are reconciled at length, and seas to shore.

Thy anger, *unappeasable*, still rages,  
Eternal tempest never to be calmed. *Milton.*



**UNAPPLICABLE**, *adj.* From apply. Such as cannot be applied.

Gratitude, by being confined to the few, has a very narrow province to work on, being acknowledged to be *unapplicable*, and so consequently ineffectual to all others. *Hammond.*

The singling out, and laying in order those intermediate ideas, that demonstratively shew the equality or inequality of *unapplicable* quantities, has produced discoveries. *Locke.*

**UNAPPREHEND'ED**, *adj.* Not understood.

They of whom God is altogether *unapprehended* are but few in number, and, for grossness of wit, such that they hardly seem to hold the place of human being. *Hooker.*

**UNAPPREHENSIVE**, *adj.* From apprehend. Not intelligent; not ready of conception.

The same temper of mind makes a man *unapprehensive* and insensible of any misery suffered by others. *South.*

**UNAPPROACH'ED**, *adj.* Inaccessible.

God is light,

And never but in *unapproached* light  
Dwelt from eternity. *Milton's Paradise Lost.*

**UNAPPROVED**, *adj.* From approve. Not approved.

Evil into the mind

May come and go so *unapproved*, and leave  
No spot behind. *Milton.*

**UNAPT**, *adj.*

From apt. Dull; not ap-

**UNAPT'LY**, *adv.*

prehesive; not ready: the

**UNAP'NESS**, *n. s.*

adverb and noun substantive

corresponding.

Men's apparel is commonly made according to their conditions, and their conditions are often governed by their garments; for the person that is gowned is by his gown put in mind of gravity, and also restrained from lightness by the very *unaptness* of his weed. *Spenser.*

A longing after sensual pleasures is a dissolution of the spirit of a man, and makes it loose, soft, and wandering, *unapt* for noble, wise, or spiritual employments. *Taylor.*

He swims on his back; and the shape of his back seems to favour it, being very like the bottom of a boat; nor do his hinder legs *unaptly* resemble a pair of oars. *Grew.*

**UNARGUED**, *adj.* From argue. Not disputed; not censured.

What thou bid'st,

*Unargued* I obey; so God ordains. *Milton.*

Not that this work lived in the hands of foes,

*Unargued* then, and yet hath fame from those. *Ben Jonson.*

**UNARM'**, *v. a.* } From arm. To disarm; to  
**UNARMED**, *adj.* } strip of armor, or of arms:  
without armor or weapons.

*Unarm*, *unarm*, and do not fight to-day. *Shakespeare.*

He all *unarmed*

Shall chase thee with the terror of his voice  
From thy demoniack holds, possession foul;  
Thee and thy legions, yelling they shall fly,  
And beg to hide them in a herd of swine. *Milton.*

**UNARRAIGNED**, *adj.* Not brought to a trial.

As lawful lord, and king by just descent,  
Should here be judged, unheard, and *unarraigned*. *Daniel.*

**UNARRAYED**, *adj.* Not dressed.

As if this infant world yet *unarrayed*,  
Naked and bare, in Nature's lap were laid. *Dryden.*

**UNART'FUL**, *adj.* }

Having no art, or cun-

**UNART'FULLY**, *adv.* } ning: the adverb corresponding.

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A cheerful sweetness in his looks he has,  
And innocence *unartful* in his face. *Dryden.*

In the report, although it be not *unartfully* drawn,  
and is perfectly in the spirit of a pleader, there is no great skill required to detect the many mistakes. *Swift's Miscellanies.*

**UNARTIFICIALLY**, *adv.* Contrarily to art.

Not a feather is *unartificially* made, misplaced, redundant, or defective. *Derham's Physico-Theology.*

**UNASK'ED**, *adj.* Not courted or sought by entreaty.

With what eagerness, what circumstance,  
*Unasked*, thou takest such pains to tell me only  
My son's the better man. *Denham's Saphy.*

How, or why

Should all conspire to cheat us with a lye?  
*Unasked* their pains, ungrateful their advice  
Starving their gain, and martyrdom their price. *Dryden.*

**UNASPIRING**, *adj.* Not ambitious.

To be modest and *unaspiring*, in honour preferring one another. *Rogers.*

**UNAVAILABLE**, *adj.* Exempt from assault.

In the number I do but know one,  
That *unavailable* holds on his rank,  
Unshaked of motion. *Shakespeare.*

**UNASSAILED**, *adj.* Not attacked; not assaulted.

I believe

That he, the supreme good, t' whom all things ill  
Are but as slavish officers of vengeance,  
Would send a glist'ring guardian, if need were,  
To keep my life and honour *unassailed*. *Milton.*

**UNASSAYED**, *adj.* Unattempted.

What is faith, love, virtue, *unassayed*  
Alone, without exterior help sustained? *Milton.*  
**UNASSISTED**, *adj.* } Not helped: giving no  
**UNASSIST'ING**, } help.

With these I went, a brother of the war;  
Nor idle stood, with *unassisting* hands. *Dryden.*

What *unassisted* reason could not discover, that God  
has set clearly before us in the revelation of the gospel. *Rogers.*

**UNASSUM'ING**, *adj.* Not arrogant.

*Unassuming* worth in secret lived,

And died neglected. *Thomson's Winter.*

**UNASSUR'ED**, *adj.* Not confident; not fit to be trusted.

The doubts and dangers, the delays and woes,  
The feigned friends, the *unassured* foes,  
Do make a lover's life a wretch's hell. *Spenser.*

**UNATON'ED**, *adj.* Not expiated.

Could you afford him such a bribe as that,  
A brother's blood yet *unatoned*? *Rowe.*

**UNATTAIN'ABLE**, *adj.* } Not to be gained  
**UNATTAIN'ABLENESS**, *n. s.* } or obtained; being  
out of reach: state of being so.

Praise and prayer are God's due worship; which are *unattainable* by our discourse, simply considered, without the benefit of divine revelation. *Dryden.*

Desire is stopped by the opinion of the impossibility, or *unattainableness*, of the good proposed. *Locke.*

**UNATTEMPTED**, *adj.* Untried; not assayed.

He left no means *unattempted* of destroying his son. *Sidney.*

Shall we be discouraged from any attempt of doing good, by the possibility of our failing in it? How many of the best things would, at this rate, have been left *unattempted*! *Atterbury.*

**UNATTEN'DED**, *adj.* } Having no retinue,  
**UNATTEN'DING**, } or attendants; unac-

companied: not attending

Your constancy

Hath left you *unattended*. *Shakespeare. Macbeth.*

Ill is lost that praise,  
That is addressed to *unattending ears*. *Milton.*

**UNATTENTIVE**, *adj.* Not regarding. Inattentive is better.

Man's nature is so *unattentive* to good, that there can scarce be too many monitors.

*Government of the Tongue.*

**UNAVAIL'ABLE**, *adj.* Useless; vain with respect to any purpose.

Supine he tumbles on the crimson sands,  
Before his helpless friends and native bands,  
And spreads for aid his *unavailing* hands. *Pope.*

**UNAVOID'ABLE**, *adj.* } Inevitable; not to  
**UNAVOID'ABLY**, *adv.* } be shunned or miss-  
**UNAVOID'ABLENESS**, *n. s.* } ed: the adverb and  
**UNAVOID'ED**, *adj.* } noun substantive cor-  
responding: unavoidable is also inevitable.

Rare poems ask rare friends;  
Yet satyrs, since the most of mankind be  
Their *unavoided* subject, fewest see. *Ben Jonson.*

How can we conceive it subject to material impres-  
sions? and yet the importunity of pain, and *unavoid-*  
*ableness* of sensations, strongly persuade that we are so.  
*Glanville.*

The most perfect administration must *unavoidably*  
produce opposition from multitudes who are made happy  
by it. *Addison.*

**UNAUTHORISED**, *adj.* Not supported by  
authority; not commissioned.

To kiss in private?

—An *unauthorized* kiss. *Shakespeare. Othello.*

It is for you to ravage seas and land,  
*Unauthorized* by my supreme command. *Dryden.*

**UNAWARE**, *adv.* } From aware, or wary.  
**UNAWARES**. } Without thought; without  
previous meditation: unexpectedly.

Let destruction come upon him at *unawares*, and let  
his net that he hath hid catch himself. *Psalms xxxv. 8.*

Take heed lest you fall *unawares* into that inconve-  
nience you formerly found fault with. *Spenser.*

Firm we subsist; yet possible to swerve,  
And fall into deception *unaware*. *Milton.*

**UNAWED**, *adj.* Unrestrained by fear or reve-  
rence.

Unforced by punishment, *unawed* by fear,  
His words were simple, and his soul sincere. *Dryden.*

**UNBACK'ED**, *adj.* Not tamed; not taught to  
bear a rider; not countenanced or supported.

Then I beat my tabor;

At which, like *unbacked* colts, they pricked their ears,  
Advanced their eyelids, lifted up their noses,  
As they smelt musick. *Shakespeare. Tempest.*

Let the weight of thine own infamy  
Fall on thee unsupported, and *unbacked*. *Daniel.*

**UNBAL'ANCED**, *adj.* Not poised; not in equi-  
poise.

Let earth *unbalanced* from her orbit fly,  
Planets and suns run lawless through the sky. *Pope.*

**UNBALLASTED**, *adj.* Not kept steady by  
ballast; unsteady.

They having but newly left those grammatick flats,  
where they struck unreasonably, to learn a few words  
with lamentable construction; and now on the sudden  
transported under another climate, to be tost and tur-  
moiled with their *unballasted* wits in fathomless and un-  
quiet deeps of controversy, do, for the most part, grow  
into hatred of learning. *Milton.*

**UNBAND'ED**, *adj.* From band. Wanting a  
string, or band.

Your hose should be ungartered, your bonnet *un-*  
*banded*, and every thing demonstrating a careless deso-  
lation. *Shakespeare.*

**UNBAR'**, *v. a.* From bar. To open, by re-  
moving the bars; to unbolt.

'Tis not secure, this place or that to guard,  
If any other entrance stand *unbarred*. *Denham.*

**UNBARB'ED**, *n. s.* Lat. *barba*, the beard.  
Unshaven.

Must I go shew them my *unbarbed* sconce?  
Must my base tongue give to my noble heart  
A lie? *Shakespeare. Coriolanus.*

**UNBARK'ED**, *adj.* From bark. Decorticated;  
stripped of the bark.

A branch of a tree, *unbarked* some space at the bottom,  
and so set in the ground, hath grown. *Bacon.*

**UNBASH'FUL**, *adj.* —Impudent; shameless.  
Nor did I with *unbashful* forehead woo  
The means of weakness and debility. *Shakespeare.*

**UNBATHED**, *adj.* From bath. Not wet.  
Fierce Pasimond, their passage to prevent,  
Thrust full on Cymon's back in his descent:

The blade returned *unbathed*, and to the handle bent.  
*Dryden.*

**UNBATTERED**, *adj.* Not injured by blows.  
I cannot strike at wretched kernes, whose arms  
Are hired to bear their staves: or thou, Macbeth;

Or else my sword, with an *unbattered* edge,  
I sheath again undeeded. *Shakespeare.*

**UNBAY**, *v. a.* To set open; to free from the  
restraint of mounds.

I ought now to loose the reins of my affections, to un-  
bay the current of my passion, and love on without  
boundary or measure. *Norris's Miscellany.*

**UNBEARING**, *adj.* Bringing no fruit.

He with his pruning hook disjoins  
*Unbearing* branches from their head,  
And grafts more happy in their stead. *Dryden.*

**UNBEATEN**, *adj.* Not treated with blows;  
untrodden.

We must tread *unbeaten* paths, and make a way  
where we do not find one; but it shall be always  
with a light in our hand. *Bacon.*

His mare was truer than his chronicle;  
For she had rode five miles unpurged, *unbeaten*,  
And then at last turned tail towards Neweaton.

*Bp. Corbet.*

**UNBECOM'ING**, *adj.* } Indecent; unsuitable;  
**UNBECOM'INGNESS**, *n. s.* } indecorous: the noun  
substantive corresponding.

No thought of flight,  
None of retreat, no *unbecoming* deed  
That argued fear. *Milton's Paradise Lost.*

If words are sometimes to be used, they ought to be  
grave, kind, and sober, representing the ill or *unbe-*  
*comingness* of the fault. *Locke.*

**UNBED**, *v. a.* To raise from a bed.

Eels *unbed* themselves, and stir at the noise of thun-  
der. *Walton's Angler.*

**UNBEFITTING**, *adj.* Not becoming; not  
suitable.

Love is full of *unbefitting* strains,  
All wanton as a child, skipping in vain. *Shakespeare.*

He might several times have made peace with his dis-  
contented subjects, upon terms not at all *unbefitting* his  
dignity or interest; but he rather chose to sacrifice the  
whole alliance to his private passion. *Swift.*

**UNBEGOT**, *v. n.* To deprive of existence.

Wishes each minute he could *unbegot*  
Those rebel sons who dare t' usurp his seat. *Dryden.*

**UNBEGOT**, *adj.* } From begot. Not begot-  
**UNBEGOT'TEN**. } ten; without generation;  
eternal.

In thy power  
It lies yet, ere conception, to prevent  
The race unblest, to being yet *unbegot*. *Milton.*



Why should he attribute the same honour to matter,  
which is subject to corruption, as to the eternal, unbe-  
gotten, and immutable God? *Stillingfleet.*

**UNBEGUILE'**, *v. a.* To undeceive; to set free  
from the influence of deceit.

Then *unbeguile* thyself, and know with me  
That angels, though on earth employed they be,  
Are still in heaven. *Donne.*

Their comeliness *unbeguiled* the vulgar of the odd  
opinion the loyalists had formerly infused into them by  
their concionatory invectives. *Hovel's Vocal Forest.*

**UNBEHELD'**, *adj.* Unseen; not discoverable  
to the sight.

These then, though *unbeheld* in deep of night,  
Shine not in vain. *Milton.*

**UNBELIEF'**, *n. s.* } Incredulity; infidelity;  
**UNBELIEVE'**, *v. a.* } irreligion; to unbelieve is  
**UNBELIEVER'**, *n. s.* } to discredit: unbeliever,  
**UNBELIEVING'**, *adj.* } one who does not, or will  
not, believe: unbelieving, incredulous; not willing  
to believe.

Where professed *unbelief* is, there can be no visible  
church of Christ; there may be where sound belief  
wanteth. *Hooker.*

So great a prince and favourite so suddenly meta-  
morphosed into travellers with no greater train, was  
enough to make any man *unbelieve* his five senses.

*Wotton's Buckingham.*

'Tis not vain or fabulous,  
What the sage poets, taught by the' heavenly muse,  
Storyed of old in high immortal verse,  
Of dire chimæras, and enchanted isles,  
And rifted rocks, whose entrance leads to hell;  
For such there be; but *unbelief* is blind. *Milton.*

In the New Testament religion is usually expressed  
by faith in God and Christ, and the love of them.  
Hence it is that true Christians are so frequently called  
believers, and wicked and ungodly men *unbelievers*.

*Tillotson.*

This wrought the greatest confusion in the unbelieving  
Jews, and the greatest conviction in the Gentiles.

*Addison.*

**UNBELOVED'**, *adj.* Not loved.

Whoe'er you are, not *unbelov'd* by heaven,  
Since on our friendly shore your ships are driven.

*Dryden.*

**UNBENDY'**, *v. a.* To free from flexure; relax;  
remit.

You *unbend* your noble strength, to think  
So brain-sickly of things. *Shakspeare. Macbeth.*

Not so when swift Camilla scours the plain,  
Flies o'er the *unbending* corn, and skims along the  
main. *Pope.*

Ye noble few, who here *unbending* stand  
Beneath life's pressures, yet a little while,  
And all your woes are past. *Thomson.*

**UNBENEFICED'**, *adj.* Not preferred to a be-  
nefice.

More vacant pulpits would more converts make;  
All would have latitude enough to take;  
The rest *unbeneficed* your sects maintain. *Dryden.*

**UNBENEVOLENT'**, *adj.* Not kind.

A religion, which not only forbids, but by its natural  
influence sweetens all bitterness and asperity of temper,  
and corrects that selfish narrowness of spirit which in-  
clines men to a fierce *unbenevolent* behaviour. *Rogers.*

**UNBENIGHTED'**, *adj.* Never visited by dark-  
ness.

Beyond the polar circles; to them day  
Had *unbenighted* shone, while the low sun  
To recompense his distance, in their sight  
Had rounded still the horizon. *Milton.*

**UNBENIGN'**, *adj.* Malignant; malevolent.

To the' other five  
Their planetary motions, and aspects,

In sextile, square, and trine, and opposite,  
Of noxious efficacy; and when to join  
In synod *unbenign*. *Milton.*

**UNBESEEMING'**, *adj.* Unbecoming.  
No emotion of passion transported me by the indig-  
nity of his carriage, to do or say any thing *unbeseeeming*  
myself. *King Charles.*

Far be the spirit of the chase from them;  
Uncomely courage, *unbeseeeming* skill. *Thomson.*

**UNBESOUGHT'**, *adj.* Not entreated.  
Lest heat should injure us, his timely care  
Hath, *unbesought*, provided; and his hands  
Cloathed us unworthy; pitying while he judged. *Mil.*

**UNBESTOWED'**, *adj.* Not given; not dis-  
posed of.

He had now but one son and one daughter *unbestowed*.  
*Bacon.*

**UNBETRAYED'**, *adj.* Not betrayed.  
Many being privy to the fact,  
How hard is it to keep it *unbetrayed*! *Daniel.*

**UNBEWAILED'**, *adj.* Not lamented.  
Let determined things to destiny  
Hold *unbewailed* their way. *Shakspeare.*

**UNBI'ASS'**, *v. a.* } To free from external mo-  
**UNBI'ASSEDLY'**, *adv.* } tive or prejudice: the ad-  
verb corresponds.

I have sought the true meaning; and have *unbiassedly*  
embraced what, upon a fair enquiry, appeared so to  
me. *Locke.*

The standing evidences of the gospel, every time  
they are considered, gain upon sincere, *unbiased* minds.  
*Atterbury.*

**UNBID'**, *adj.* } Uninvited.  
**UNBIDDEN'**, *adj.* }

*Unbidden* guests

Are often welcomest when they are gone. *Shaksp.*  
Thorns also and thistles it shall bring thee forth  
*Unbid*. *Milton.*

**UNBIGOTTED'**, *adj.* Free from bigotry.  
Erasmus, who was an *unbigotted* Roman Catholic,  
was so much transported with this passage of Socrates,  
that he could scarce forbear looking upon him as a  
saint, and desiring him to pray for him. *Addison.*

**UNBIND'**, *v. a.* From bind. To loose; untie.  
His own woe's author, whose bound it finds,  
As did Pyrocles, and it wilfully *unbinds*. *Spenser.*  
On the sixth instant it was thought fit to *unbind* his  
head. *Tatler.*

**UNBISH'OP'**, *v. a.* From bishop. To deprive  
of episcopal orders.

I cannot look upon Titus as so far *unbishops'd* yet, but  
that he still exhibits to us all the essentials of jurisdic-  
tion. *South.*

**UNBITTED'**, *adj.* From bit. Unbridled; un-  
restrained.

We have reason to cool our raging motions, our car-  
nal stings, our *unbitted* lusts; whereof I take this love  
to be a sect or cyon. *Shakspeare.*

**UNBLAM'ABLE'**, *adj.* } Not culpable; not  
**UNBLAM'ABLY'**, *adv.* } chargeable with fault:  
**UNBLAM'ED'**, *adj.* } the adverb correspond-  
ing: *unblamed* is, unimpeached; not charged with  
fault.

Ye are witnesses, and God also, how holily, and  
justly, and *unblamably* we behaved ourselves.

1 Thess. ii. 10.

Much more could I say concerning this *unblamable*  
inequality of fines and rates. *Bacon.*  
Shall spend your days in joy *unblamed*, and dwell  
Long time in peace. *Milton.*

**UNBLEM'ISHED'**, *adj.* Free from turpitude:  
free from reproach; free from deformity.

Under this stone lies virtue, youth,  
*Unblemished* probity, and truth. *Waller*

They appointed, out of these new converts, men of the best sense, and of the most *unblemished* lives, to preside over these several assemblies. Addison.

**UNBLENCED**, *adj.* Not disgraced; not injured by any soil.

There, where very desolation dwells,  
She may pass on with *unbleached* majesty;  
Be it not done in pride, or in presumption. Milton.

**UNBLEND**, *adj.* Not mingled.  
None can boast a knowledge deperate from defilement, within this atmosphere of flesh; it dwells no where in *unbleached* proportions on this side the empyreum. Glanville.

**UNBLEST**, *adj.* Excluded from benediction; accursed; unhappy.

It is a shameful and *unblest* thing, to take the scum of people, and wicked, condemned men, to be the people with whom you plant. Bacon.

What is true passion, if *unblest* it dies?  
And where is Emma's joy, if Henry flies? Prior.

**UNBLOOD**, *adj.* Not stained with blood; not cruel; not shedding blood.

Who finds the partridge in the puttock's nest,  
But may imagine how the bird was dead,  
Although the kite soar with *unblooded* beak. Shakspeare.

**UNBLOWN**, *adj.* Having the bud yet unexpanded.

Ah! my poor princes! Ah! my tender babes!  
My *unblown* flowers, new-appearing sweets. Shakspeare.

**UNBLUNTED**, *adj.* Not becoming obtuse.  
A sword, whose weight without a blow might slay;  
Able, *unblunted*, to cut hosts away. Cowley.

**UNBODIED**, *adj.* Incorporeal; immaterial; freed from the body.

She hath the bonds broke of eternal night;  
Her soul *unbodied* of the burdensome corpse. Spenser.

If we could conceive of things as angels and *unbodied* spirits do, without involving them in those clouds language throws upon them, we should seldom be in danger of such mistakes as are perpetually committed. Watts's Logic.

**UNBOILED**, *adj.* Not sodden.

A quarter of a pint of rice *unboiled* will arise to a pint boiled. Bacon.

**UNBOLT**, *v. a.* To set open; to unbar.

I'll call my uncle down;  
He shall *unbolt* the gates. Shakspeare.

I will tread this *unbolted* villain into mortar, and daub the walls of a jakes with him. Id.

**UNBONNETTED**, *adj.* Wanting a hat or bonnet.

This night, wherein  
The lion and the belly-pinched wolf  
Keep their fur dry, *unbonnetted* he runs,  
And bids what will, take all. Shakspeare.

**UNBOOKISH**, *adj.* Not studious of books; uneducated.

As he shall smile Othello shall go mad;  
And his *unbookish* jealousy must construe  
Poor Cassio's smiles, gestures, and light behaviour,  
Quite in the wrong. Shakspeare. Othello.

**UNBORN**, *adj.* Not yet brought into life; future; being to come.

Some *unborn* sorrow, ripe in fortune's womb,  
Is coming toward me. Shakspeare. Richard II.

To what wretched state reserved!  
Better end here *unborn*! Why is life given  
To be thus wasted from us? Milton.

**UNBORROWED**, *adj.* Genuine; native; one's own.

In substances, especially those which the common and *unborrowed* names of any language are applied to, some remarkable, sensible qualities serve to distinguish one from another. Locke.

**UNBOSOM**, *v. a.* To reveal in confidence.

The gentle neighbourhood of grove and spring  
Would soon *unbosom* all their echoes mild. Milton.  
Do we *unbosom* all our secrets to him, and hide nothing that passeth in the depth of our hearts from him? Atterbury.

**UNBOTTOMED**, *adj.* Without bottom; bottomless.

This is a special act of Christian hope, to be thus *unbottomed* of ourselves, and fastened upon God, with a full reliance, trust, and dependance on his mercy. Hammond.

The dark, *unbottomed*, infinite abyss. Milton.

**UNBOUGHT**, *adj.* Obtained without money. The *unbought* dainties of the poor. Dryden. Horace.

**UNBOUND**, *adj.* Loose; not tied; want-

**UNBOUND**, *adj.* ing a cover: without

**UNBOUND**, *adj.* limit; infinite; the ad-

**UNBOUND**, *adj.* verb and noun substantively correspond with unbounded.

He was a man

Of an *unbounded* stomach, ever ranking  
Himself with princes. Shakspeare.

Some from their chains the faithful dogs *unbound*. Dryden.

The wide, the *unbounded* prospect lies before me;  
But shadows, clouds, and darkness rest upon it. Addison.

He that has complex ideas, without particular names for them, would be in no better case than a bookseller who had volumes that lay *unbound*, and without titles; which he could make known to others, only by shewing the loose sheets. Locke.

Finitude, applied to created things, imports the proportions of the several properties of these things to one another. Infinitude the *unboundedness* of these degrees of properties. Cheyne.

**UNBOWED**, *adj.* Not bent.

He knits his brow, and shews an angry eye,  
And passeth by with stiff, *unbowed* knee,  
Disdaining duty that to us belongs. Shakspeare. Henry VI.

**UNBOWEL**, *v. a.* To exterate; eviscerate.

In this chapter I'll *unbowel* the state of the question. Hukewill.

**UNBRACE**, *v. a.* To loose; relax; untie.

Hamlet, with his doublet all *unbraced*;  
No hat upon his head, his stockings loose. Shakspeare.  
Wasting years, that wither human race,  
Exhaust thy spirits, and thy arms *unbrace*. Pope's Iliad.

**UNBREATHED**, *adj.* Not exercised.

They now have toiled their *unbreathed* memories  
With this same plea against our nuptials. Shakspeare.

They spake not a word;

But like dumb statues, or *unbreathing* stones,  
Stared each on other and looked deadly pale. Id.

**UNBRED**, *adj.* Not instructed in civility; ill educated; not taught; taking to.

A warrior dame,

*Unbred* to spinning, in the loom unskilled. Dryden.  
Children learn from *unbred* or debauched servants,  
untowardly tricks. Locke on Education.

**UNBREECHED**, *adj.* Having no breeches; boyish.

Looking on my boy's face, methought I did recoil  
Twenty-three years, and saw myself *unbreeched*,  
In my green velvet coat. Shakspeare. Winter's Tale.

**UNBRIED**, *adj.* Not influenced by money or gifts; not hired.

To succour the distressed;

*Unbried* by love, unterrified by threats. A. Philips.

**UNBRI'DLED**, *adj.* Licentious; not restrained.



To what licence

Dares thy *unbridled* boldness run itself? Ben Jonson.  
We have considered religious zeal, which transgresses  
in *unbridled* excess. Sprat's Sermons.

*UNBROKE'*, *adj.* } From break. Not vio-  
*UNBRO'KEN.* } lated, subdued, or weakened.  
God pardon all oaths that are broke to me;  
God keep all vows *unbroke*, are made to thee. Shakspeare.  
He first broke peace in heaven, and faith, till then  
*Unbroken.* Milton.

A lonely cow,  
Unworn with yokes, *unbroken* to the plow. Addison.

*UNBROTHERLIKE*, *adj.* } Ill suiting with  
*UNBROTHERLY.* } the character of a  
brother.

Victor's *unbrotherlike* heat towards the eastern  
churches fomented that difference about Easter into a  
schism. Decay of Piety.

*UNBRUISED*, *adj.* Not bruised; not hurt.  
Care keeps his watch in ev'ry old man's eye:  
And, where care lodgeth, sleep will never lie;  
But where *unbruised* youth, with unstuffed brain,  
Doth couch his limbs, there golden sleep doth reign.  
Shakspeare.

*UNBUCKLE*, *v. a.* To loose from buckles.  
His starry helm *unbuckled*, showed him prime  
In manhood, where youth ended. Milton.  
All *unbuckling* the rich mail they wore,  
Laid their bright arms along the sable shore. Pope.

*UNBUILD'*, *v. a.* } To raze; destroy: not  
*UNBUILT'*, *adj.* } built.  
This is the way to kindle not to quench;  
To *unbuild* the city, and to lay all flat. Shakspeare.  
Built walls you shun, *unbuilt* you see. Dryden.

*UNBURIED*, *adj.* Not interred; not honored  
with funeral rites.

The moss, which groweth upon the skull of a dead  
man *unburied*, will staunch blood potentially. Bacon.  
The wandering ghosts  
Of kings *unburied* on the wasted coasts. Pope.

*UNBURNED*, *adj.* } Not consumed, wasted,  
*UNBURN'T,* } or injured by fire: not  
*UNBURN'ING.* } burning.  
Burnt wine is more hard and astringent than wine *un-  
burnt.* Bacon.

What we have said of the *unburning* fire called light,  
streaming from the flame of a candle, may easily be ap-  
plied to all other light deprived of sensible heat.

*UNBURTHEN*, *v. a.* To rid of a load; throw  
off; disclose that which is metaphorically a burden  
to the mind.

We'll shake all cares and business from our age,  
Conferring them on younger strengths; while we  
*Unburdened* crawl tow'rd death. Shakspeare  
Sharp Buckingham *unburthens* with his tongue  
The envious load that lies upon his heart. Id.

*UNBUTTON*, *v. a.* To loose any thing but-  
toned.

Thou art fat-witted with drinking old sack, and *un-  
buttoning* thee after supper. Shakspeare.  
Many catch cold on the breast, by leaving their  
doublets *unbuttoned.* Harvey on Consumption.

*UNCALCINED*, *adj.* Free from calcination.  
A saline substance, subtler than sal ammoniac, car-  
ried up with it *uncalcined* gold in the form of subtle ex-  
halations. Boyle.

*UNCALLED*, *adj.* Not summoned; not de-  
manded.

Basilius had servants, who, though they came not  
*uncalled*, yet at call were ready. Sidney.  
He, bolder now, *uncalled* before her stood. Milton.

*UNCALM'*, *v. a.* To disturb. A harsh word.  
What strange disquiet has *uncalm'd* your breast,  
Inhuman fair, to rob the dead of rest? Dryden.

*UNCAN'CELLED*, *adj.* Not erased; not abro-  
gated.

I only mourn my yet *uncancelled* score;  
You put me past the power of paying more. Dryden.  
*UNCAN'PABLE*, *adj.* Fr. *incapable*; Lat. *inca-  
par.* Not capable; not susceptible. More fre-  
quently *incapable*.

Thou art come to answer  
A stony adversary, an inhuman wretch,  
*Uncapable* of pity, void and empty  
From any dram of mercy. Shakspeare.

*UNCASE'*, *v. a.* To disengage from covering;  
flay; strip.

See Pompey is *uncasing* for the combat. Shakspeare.  
All men him *uncased* 'gan deride. Hubberd.

*UNCAUGHT'*, *adj.* Not yet caught.  
His bosom glows with treasures yet *uncaught.* Gay.  
*UNCAUTIOUS*, *adj.* Not wary; heedless.

Unforeseen, they say, is unprepared:  
*Uncautious* Arcite thought himself alone. Dryden.

*UNCLE'BRATED*, *adj.* Not solemnised.  
Thus was the first day, ev'n and morn;  
Nor passed *unclebrated*, nor unsung  
By the celestial choirs. Milton.

*UNCENS'URED*, *adj.* Exempt from public  
reproach.

How difficult must it be for any ruler to live *uncen-  
sured*, where every one of the community is thus quali-  
fied for modelling the constitution? Addison.

Fear most to tax an honorable fool,  
Whose right it is *uncensored* to be dull. Pope.

*UNCERTAIN*, *adj.* } Fr. *incertain*; Lat. *in-  
UNCERTAINED,* } *certus.* Doubtful; not  
*UNCERTAINLY*, *adv.* } certainly known; unset-  
*UNCERTAINTY*, *n. s.* } tled: made uncertain: the  
adverb and noun substantive corresponding.

As the form of our public service is not voluntary, so  
neither are the parts thereof *uncertain*; but they are all  
set down in such order, and with such choice, as hath  
in the wisdom of the church seemed best. Hooker.

You common cry of curs, whose breath I hate,  
Here then remain with your *uncertainty*;  
Let ev'ry feeble rumour shake your hearts. Shakspeare.  
They that are past all hope of good, are past  
All fear of ill: and yet, if he be dead,  
Speak softly, or *uncertainly.* Denham.

God's omniscience is a light shining into every dark  
corner, steadfastly grasping the greatest and most slip-  
pery *uncertainties.* South.

*UNCHAIN'*, *v. a.* To free from chains.

Minerva thus to Perseus lent her shield  
Secure of conquest, sent him to the field:  
The hero acted what the queen ordained;  
So was his fame complete, and Andromede *unchained.*  
Prior.

*UNCHANG'ED*, *adj.* } Not altered: not  
*UNCHANG'EABLE,* } to be changed: un-  
*UNCHANG'EABLENESS*, *n. s.* } changeableness and  
*UNCHANG'EABLY*, *adv.* } unchangeably cor-  
*UNCHANG'ING*, *adj.* } responding: un-  
changing is also without alteration or change.

But that thy face is vizor-like, *unchanging*,  
Made impudent with use of evil deeds,  
I would essay, proud queen, to make thee blush. Shak.  
More safe I sing with mortal voice; *unchanged*  
To hoarse, or mute. Milton.

Dismiss thy fear,  
And heaven's *unchanged* decrees attentive hear;  
More powerful gods have torn thee from my side. Dry  
All truth is *unchangeably* the same; that proposition,  
which is true at any time, being so for ever. South.

**UNCHARGE', v. s.** To retract an accusation. Even his mother shall *uncharge* the practice, And call it accident. *Shakespeare. Hamlet.*

**UNCHARITABLE, adj.** } Contrary to ena-  
**UNCHARITABLY, adv.** } rity or universal  
**UNCHARITABLENESS, n. s.** } love: the adverb  
and noun substantive correspond.

I do not mean the cutting off all that nation with the sword; which, far be it from me that I should ever think so desperately, or wish so *uncharitably*. *Spenser.*

*Uncharitable* zeal our reason whets,  
And double edges on our passion sets. *Denham.*  
Heaven and hell are the proper regions of mercy and *uncharitableness*. *Atterbury.*

**UNCHARY, adj.** Not wary; not frugal. I've said too much unto a heart of stone, And laid my honour too *unchary* out. *Shakespeare.*

**UNCHASTE, adj.** } Lewd; libidinous; not  
**UNCHASTITY, n. s.** } continent; not chaste; not  
pure: the noun substantive corresponding.

One, that in divers places I had heard before blazed, as the most impudently *unchaste* woman of all Asia. *Sidney.*

Lust, by *unchaste* looks,  
Lets in defilement to the inward parts. *Milton.*  
That generation was more particularly addicted to intemperance, sensuality, and *unchastity*. *Woodward.*

**UNCHECK'ED, adj.** Unrestrained; not hindered.

What news on the Ryalto?  
—Why, yet it lives there *unchecked*, that Anthonio hath a ship of rich lading wrecked. *Shakespeare. Merchant of Venice.*

Apt the mind, or fancy, is to rove  
*Unchecked*, and of her roving is no end. *Milton.*

**UNCHEERFULNESS, n. s.** Melancholy, gloominess of temper.

Many, by a natural *uncheerfulness* of heart, love to indulge this uncomfortable way of life. *Addison's Spectator.*

**UNCHEW'ED, adj.** Not masticated. His fills his furnished maw, his mouth runs o'er With *unchewed* morsels, while he churns the gore. *Dryden.*

**UNCHILD', v. a.** To deprive of children. A very 'unimitable' word, like many others of these negatives.

He hath widowed and *unchilded* many a one,  
Which to this hour bewail the injury. *Shakespeare.*

**UNCHRISTENED, adj.** Not christened.

A murderer's banes in gibbet airs;  
Two span-lang, wee, *unchristened* bairns;  
A thief, new-cutted frae a rape,  
Wi' his last gasp his gab did gape. *Burns.*

**UNCHRISTIAN, adj.** } Contrary to the  
**UNCHRISTIANNESS, n. s.** } laws of Christianity;  
infidel: state or quality of being contrary to Christianity.

The *unchristianness* of those denials might arise from a displeasure to see me prefer my own divines before their ministers. *King Charles.*

It's uncharitable, *unchristian*, and inhuman, to pass a peremptory sentence of condemnation upon a tried friend, where there is any room left for a more favourable judgment. *L'Estrange.*

**UNCIRCUMCISED, adj.** } Not circumcised;  
**UNCIRCUMCISION, n. s.** } not a Jew: state of  
being uncircumcised.

God, that gives the law that a Jew shall be circumcised, thereby constitutes *uncircumcision* an obliquity; which, had he not given that law, had never been such. *Hammond.*

The *uncircumcised* smiled grimly with disdain. *Cowley.*

**UNCIRCUMSCRIBED, adj.** Unbounded; unlimited.

Though I, *uncircumscribed* myself, retire,  
And put not forth my goodness. *Milton's Par. Lost.*  
Where the power is *uncircumscribed*, the obedience ought to be unlimited. *Addison.*

**UNCIRCUMSPECT, adj.** Not cautious; not vigilant.

Their *uncircumspect* simplicity had been used, especially in matters of religion. *Hayward.*

**UNCIVIL, adj.** } Fr. *incivil*; Lat. *incivilis*.

**UNCIVILLY, adv.** } Unpolite; not agreeable to  
rules of complaisance.

Your undutiful, *uncivil*, and uncharitable dealing in this your book, hath detected you. *Whitgift.*

Somewhat in it he would not have done, or desired undone, when he broke forth as desperately, as before he had done *uncivilly*. *Broune's Vulgar Errors.*

My friends are so unreasonable, that they would have me be *uncivil* to him. *Spectator.*

**UNCIVILIZED, adj.** Not reclaimed from barbarity.

Several, who have been polished in France, make use of the most coarse, *uncivilized* words in our language. *Addison.*

**UNCLARIFIED, adj.** Not purged; not purified.

One ounce of whey *unclarified*; one ounce of oil of vitriol, make no apparent alteration. *Bacon.*

**UNCLASP', v. a.** To open what is shut with clasps.

Prayer can *unclasp* the girdles of the north, saying to a mountain of ice, Be thou removed hence, and cast into the sea. *Taylor's Worthy Communicant.*

**UNCLASS'IC, adj.** Not classic.

Angel of dulness, sent to scatter round  
Her magick charms o'er all *unclassick* ground. *Pope.*

**UNCLE, n. s.** Fr. *oncle*. The father's or mother's brother.

Hamlet punishes his *uncle* rather for his own death, than the murder of his father. *Shakespeare Illustrated.*

**UNCLEAN', adj.** } Foul; dirty; filthy;  
**UNCLEAN'LY, adv.** } morally polluted; lewd;  
**UNCLEAN'LINESS, n. s.** } unchaste: the adverb  
**UNCLEAN'NESS, adj.** } and other derivatives  
**UNCLEANSED, adj.** } correspond.

I will save you from all your *uncleannesses*. *Ezek. xxxvi. 29.*

Adultery of the heart, consisting of inordinate and *unclean* affections. *Perkins.*

Civet is of a baser birth than tar;  
The very *uncleanly* flux of a cat. *Shakespeare.*

Pond earth is a good compost, if the pond have been long *uncleaned*; so the water be not too hungry. *Bacon's Natural History.*

This profane liberty and *uncleanliness* the archbishop resolved to reform. *Clarendon.*

**UNCLENCH', v. a.** To open the closed hand.

The hero so his enterprize recalls;  
His fist *unclenches*, and the weapon falls. *Garth.*

**UNCLEW', v. a.** From *clew*. To undo.

If I should pay you for 't as 'tis extolled,  
It would *unclew* me quite. *Shakespeare. Timon.*

**UNCLIPPED, adj.** Whole; not cut.

As soon as there began a distinction between clipped and *unclipped* money, bullion arose. *Locke.*

**UNCLOTHE', v. a.** To strip; make naked.

The boughs and branches are never *unclothed* and left naked. *Raleigh's History of the World.*

Poor orphans' minds are left as *unclothed* and naked altogether as their bodies. *Atterbury.*

**UNCLOG', v. a.** To disencumber; exonerate.



Could I meet 'em

But once a-day, it would *unclug* my heart  
Of what lies heavy to it. *Shakspeare.*

Then air, because *unclug'd* in empty space,  
Flies after fire, and claims the second place. *Dryden.*

UNCLOISTER, *v. a.* To set at large.

Why did I not, *uncloistered* from the womb,  
Take my next lodging in a tomb? *Norris.*

UNCLOSE, *v. a.* To open.

The king's army would, through those *unclosed* parts,  
have done them little harm. *Clarendon.*

Soon as thy letters trembling I *unclose*,  
That well-known name awakens all my woes. *Pope.*

UNCLOUD'ED, *adj.* } Both adjectives mean  
UNCLOUD'EDNESS, *n. s.* } free from clouds; clear

UNCLOUD'Y, *adj.* } from obscurity; not  
darkened: and the noun substantive corresponds.

True virtues, with *uncclouded* light,  
All great, all royal, shine divinely bright. *Roscommon.*

Now night in silent state begins to rise,  
And twinkling orbs bestrow the *unccloudy* skies;

Her borrowed lustre growing Cynthia lends. *Gay.*

UNCLUTCH, *v. a.* To open.

If the terrors of the Lord could not melt his bowels,  
*unclutch* his gripping hand, or disseize him of his prey;  
yet sure it must discourage him from grasping of  
heaven too. *Decay of Piety.*

To UNCOIF, *v. a.* To pull the cap off.

Yonder are two apple-women scolding, and just  
ready to *uncoif* one another. *Arbutnot to Pope.*

UNCOIL, *v. a.* To open from being coiled or  
wrapped.

The spiral air-vessels are like threads of cobweb, a  
little *uncoiled*. *Derham's Physico-Theology.*

UNCOINED, *adj.* Not coined; not impressed  
or prejudiced in mind.

While thou liv'st, Kate, take a fellow of plain, *un-*  
*coined* constancy. *Shakspeare. Henry V.*

An ounce of coined standard silver must be of equal  
value to an ounce of *uncoined* standard silver. *Locke.*

UNCOLLECTED, *adj.* Not collected; not  
recollected.

Asham'd, confused, I started from my bed,  
And to my soul yet *uncollected* said,  
Into thyself, fond Solomon! return;  
Reflect again, and thou again shalt mourn. *Prior.*

UNCOLORED, *adj.* Not stained or tinged  
with any color, or die.

Out of things *uncoloured* and transparent, we can re-  
present unto you all several colours. *Bacon.*

Whether to deck with clouds the *uncoloured* sky,  
Or wet the thirsty earth with falling showers;

Rising or falling, still advance his praise. *Milton.*

UNCOMBED, *adj.* Not adjusted by the comb.

They might perceive his head  
To be unarmed, and curled, *uncombed* hairs

Upstarting stiff. *Spenser.*

Their locks are beds of *uncombed* snakes, that wind  
About their shady brows in wanton rings. *Crashaw.*

UNCOME'LY, *adj.* } Not comely; wanting

UNCOME'LINESS, *n. s.* } grace: the noun substan-  
tive corresponds.

Though he thought inquisitiveness an *uncome'ly* guest,  
he could not but ask who she was. *Sidney.*

He praised women's modesty, and gave orderly well-  
behaved reproof to all *uncome'liness*. *Shakspeare.*

Uncome'ly courage, unbeseeing skill. *Thomson.*

UNCOMFORTABLE, *adj.* } Affording no

UNCOMFORTABLY, *adv.* } comfort; gloomy;

UNCOMFORTABLENESS, *n. s.* } dismal: the ad-  
verb and noun substantive corresponding.

He much complaineth of his own *uncomfortable* exile,  
wherein he sustained many most grievous indignities,

and endured the want of sundry, both pleasures and  
honours, before enjoyed. *Hooker.*

Christmas is in the most dead, *uncomfortable* time of  
the year, when the poor people would suffer very much,  
if they had not good cheer to support them. *Addison.*

UNCOMMAND'ED, *adj.* Not commanded.

It is easy to see what judgment is to be passed upon  
all those affected, *uncommanded*, absurd austerities of  
the Romish profession. *South.*

UNCOM'MON, *adj.* } Not frequent; rare:

UNCOM'MONNESS, *n. s.* } rareness.

Some of them are *uncommon*, but such as the reader  
must assent to, when he sees them explained. *Addison.*

Our admiration of the antiquities about Naples and  
Rome, does not so much arise out of their greatness as  
*uncommonness*. *Id.*

UNCOMMUNICATED, *adj.* Not communi-  
cated.

Whatsoever is natural to deity, the same remaineth  
in Christ *uncommunicated* unto his manhood; and what-  
soever natural to manhood, his deity thereof is incap-  
able. *Hooker.*

UNCOMPACT, *adj.* Not compact; not closely  
cohering.

These rivers were not streams of running matter; for  
how could a liquid, that lay hardening by degrees,  
settle in such a furrowed, *uncompact* surface?

*Addison.*

UNCOMPANIED, *adj.* Having no com-  
panion.

Thence she fled, *uncompained*, unsought. *Fairfax.*

UNCOMPASSIONATE, *adj.* Having no  
pity.

Hero and Leander were drowned in the *uncompassion-*  
*ate* surges. *Sandy's Journey.*

If thou in strength all mortals dost exceed;

In *uncompassionate* anger do not so. *Milton.*

UNCOMPELLED, *adj.* Free from compul-  
sion.

The amorous needle, once joined to the loadstone,  
would never, *uncompelled*, forsake the enchanting mi-  
neral. *Boyle.*

UNCOMPLAISANT, *adj.* Not civil; not  
obliging.

A natural roughness makes a man *uncomplaisant* to  
others, so that he has no deference for their inclinations.

*Locke.*

UNCOMPLEAT, *adj.* Not perfect; not  
finished.

Various incidents do not make different fables, but  
are only the *uncompleat* and unfinished parts of the  
same fable. *Pope.*

UNCOMPOUNDED, *adj.* Simple; not  
mixed.

The substance of the faith was comprised in that *un-*  
*compounded* style, but was afterwards prudently en-  
larged, for the repelling heretical invaders.

*Hammond's Fundamentals.*

Hardness may be reckoned the property of all *un-*  
*compounded* matter. *Newton's Opticks.*

UNCOMPREHENSIVE, *adj.* Unable to  
comprehend. In Shakspeare it seems to signify  
incomprehensible.

The providence, that's in a watchful state,  
Knows almost every grain of Pluto's gold;

Finds bottom in the *incomprehensive* deep. *Shakspeare.*

UNCOMPRESSED, *adj.* Free from com-  
pression.

We might be furnished with a reply, by setting down  
the differing weight of our receiver, when emptied, and  
when full of *uncompressed* air. *Boyle*

**UNCONCEIVED**, *adj.* } Not thought; not  
**UNCONCEIVABLE**, } imagined: not to be  
**UNCONCEIVABLENESS**, *n. s.* } imagined: incomprehensibility.

Vast is my theme, yet *unconceived*, and brings  
 Untoward words, scarce loosened yet from things.

*Creech.*

The *unconceivableness* of something they find in one,  
 throws men violently into the contrary hypothesis,  
 though altogether as unintelligible.

*Locke.*

**UNCONCERN**, *n. s.* } Both noun sub-  
**UNCONCERN'ED**, *adj.* } stantives signify neg-  
**UNCONCERN'EDLY**, *adv.* } ligence; want of in-  
**UNCONCERN'EDNESS**, *n. s.* } terest; freedom from  
**UNCONCERN'ING**, *adj.* } anxiety or perturbation:  
 unconcerned, having, or feeling no interest  
 or anxiety: the adverb corresponding: unconcern-  
 ing is uninteresting.

Things impossible in their nature, or *unconcerning* to  
 us, cannot beget it.

*Decay of Piety.*

You called me into all your joys, and gave me  
 An equal share; and in this depth of misery

Can I be *unconcerned*?

*Denham's Sophy.*

Death was denounced, that frightful sound,  
 Which even the best can hardly bear:

He took the summons, void of fear,

And *unconcernedly* cast his eyes around,  
 As if to find and dare the griesly challenger.

*Dryden.*

This science of medals, which is charged with so  
 many *unconcerning* parts of knowledge, and built on  
 such mean materials, appears ridiculous to those that  
 have not examined it.

*Addison on Medals.*

**UNCONCLU'DENT**, *adj.* } Not decisive;  
**UNCONCLU'DING**, } inferring no plain  
 or certain conclusion or consequence.

Our arguments are inevident and *unconcludent*.

*Hale.*

Either may be much more probably maintained than  
 hitherto, as against the unaccuracy and the *uncon-  
 cludingness* of the analytical experiments vulgarly re-  
 lied on.

*Boyle.*

He makes his understanding only the warehouse of  
 other men's false and *unconcluding* reasonings, rather  
 than a repository of truth for his own use.

*Locke.*

**UNCONCOCTED**, *adj.* Not digested; not  
 matured.

We swallow cherry stones, but void them *unconcoo-  
 ted*.

*Broune's Vulgar Errours.*

Did she extend the gloomy clouds on high,

Where all the amazing fireworks of the sky  
 In *unconcocted* seeds fermenting lie.

*Blackmore.*

**UNCONDEMNED**, *adj.* Not condemned.

It was a familiar and *uncondemned* practice, amongst  
 the Greeks and Romans, to expose, without pity, their  
 innocent infants.

*Locke.*

**UNCONDITIONAL**, *adj.* Absolute; not  
 limited by any terms.

O pass not, Lord! an absolute decree,  
 Or bind thy sentence *unconditional*;

But in thy sentence our remorse foresee,  
 And, in that foresight, this thy doom recal.

*Dryden.*

Our Saviour left a power in his church to absolve  
 men from their sins; but this was not an absolute and  
*unconditional* power.

*Ayliffe's Parergon.*

**UNCONFINED**, *adj.* } Free from restraint;  
**UNCONFIN'ABLE**, } unlimited: not to be  
 limited or confined.

You rogue! you stand upon your honour! why,  
 thou *unconfinable* baseness, it is as much as I can do to  
 keep mine honour.

*Shak. Merry Wives of Windsor.*

If that which men esteem their happiness, were, like  
 the light, the same sufficient and *unconfined* good, whe-  
 ther tea thousand enjoy the benefit of it, or but one,  
 we should see men's good will and kind endeavours  
 would be as universal.

*Spectator.*

Blest with a taste exact, yet *unconfined*;  
 A knowledge both of books and human kind.

*Pope.*

**UNCONFIRMED**, *adj.* Not fortified by re-  
 solution; not strengthened; raw; weak.

The unexpected speech

The king had made upon the new-raised force,  
 In the *unconfirmed* troops much fear did breed.

*Daniel.*

He would have resigned

To him his heavenly office, nor was long

His witness *unconfirmed*.

*Milton's Par. Regained.*

**UNCONFORM**, *adj.* } Unlike; dissimilar;  
**UNCONFORM'ABLE**, } not conforming: the  
**UNCONFORM'ITY**, *n. s.* } noun substantive cor-  
 responding.

Unto those general rules, they know we do not de-  
 fend, that we may hold any thing *unconformable*.

*Hooker.*

Not *unconform* to other shining globes.

*Milton.*

The moral goodness or evil of men's actions, which  
 consists in their conformity or *unconformity* to right rea-  
 son must be eternal, necessary, and unchangeable.

*South.*

**UNCONFUS'ED**, *adj.* } Distinct; free from  
**UNCONFUS'EDLY**, *adv.* } confusion.

It is more distinct and *unconfused* than the sensitive  
 memory.

*Hale.*

Every one finds that he knows when any idea is in  
 his understanding, and that, when more than one are  
 there, he knows them, distinctly and *unconfusedly*, from  
 one another.

*Locke.*

**UNCONFUTABLE**, *adj.* Irrefragable; not to  
 be convicted of error.

One political argument they boasted of as *unconfut-  
 able*, that from the marriages of ecclesiastics would en-  
 sue poverty in many of the children, and thence a dis-  
 grace and burden to the church.

*Sprat.*

**UNCONGEAL'ED**, *adj.* Not concreted by cold.  
 By exposing wine, after four months digestion in  
 horse-dung, unto the extremity of cold, the aqueous  
 parts will freeze, but the spirit retire, and be found *un-  
 congealed* in the centre.

*Broune.*

**UNCONJUGAL**, *adj.* Not consistent with  
 matrimonial faith; not befitting a wife or husband.

My name

To all posterity may stand defamed;  
 With malediction mentioned, and the blot  
 Of falsehood most *unconjugal* traduced.

*Milton.*

**UNCONNECT'ED**, *adj.* Not coherent; not  
 joined by proper transitions or dependence of  
 parts.

Those who contemplate only the fragments broken off  
 from any science, dispersed in short *unconnected* dis-  
 courses, can never survey an entire body of truth.

*Watts.*

**UNCONNT'ING**, *adj.* Not forbearing pena-  
 notice.

To that hideous place not so confined,  
 By rigour *unconnting*; but that oft,  
 Leaving my dolorous prison, I enjoy

Large liberty, to round this globe of earth.

*Milton.*

**UNCONQUERABLE**, *adj.* } Not to be sub-  
**UNCONQUERABLY**, *adv.* } dued; insuper-  
**UNCONQUERED**, *adj.* } able; invincible:  
 the adverb corresponding: unconquered is not sub-  
 dued; not overcome.

These brothers had a-while served the king of Pon-  
 tus; and in all his affairs, especially of war, whereunto  
 they were only apt, they had shewed as *unconquered*  
 courage, so a rude faithfulness.

*Sidney*

Louis was darting his thunder on the Alps, and  
 causing his enemies to feel the force of his *unconquera-  
 ble* arms.

*Dryd.*



The herds of Iphycus, detained in wrong;  
Wild, furious herds, *unconquerably* strong. *Pope.*

**UNCONSCIONABLE**, *adj.* } Exceeding the  
**UNCONSCIONABLY**, *adv.* } limits of just ex-  
pectation; not guided by moderation or by con-  
science; enormous; vast: the adverb corresponding.

His giantship is gone somewhat 'crest-fall'n,  
Striking with less *unconscionable* strides;  
And lower looks, but in a sultry chase. *Milton.*

This is a common vice; though all things here  
Are sold, and sold *unconscionably* dear. *Dryden.*

**UNCONSECRATED**, *adj.* Not sacred; not  
dedicated.

The sin of Israel had even *unconsecrated* and profaned  
that sacred edifice, and robbed it of its only defence. *South.*

**UNCONSENTED**, *adj.* Not yielded.

We should extend it even to the weaknesses of our  
natures, to our proneness to evil: for however these,  
*unconsented* to, will not be imputed to us, yet are they  
matter of sorrow. *Wake.*

**UNCONSIDERED**, *adj.* Not considered; not  
attended to.

Love yourself; and, in that love,  
Not *unconsidered* leave your honour. *Shakspeare.*

**UNCONSONANT**, *adj.* Incongruous; unfit;  
inconsistent.

It seemeth a thing *unconsonant*, that the world should  
honour any other as the Saviour, but him whom it  
honoureth as the Creator of the world. *Hooker.*

**UNCONSTANT**, *adj.* Fr. *inconstant*; Lat. *in-*  
*constans*. Fickle; not steady; changeable. In-  
constant is more usual.

More *unconstant* than the wind; who woos  
Even now the frozen bosom of the north;  
And, being angered, puffs away from thence,  
Turning his face to the dew-dropping south. *Shaksp.*

**UNCONSTRAINED**, *adj.* } Not compelled or  
**UNCONSTRAIN'EDLY**, *adv.* } restrained: the ad-  
**UNCONSTRAINT'**, *n. s.* } verb correspond-  
ing: freedom from constraint; ease.

These be the miseries which our first parents brought  
upon all mankind, unto whom God, in his creation,  
gave a free and *unconstrained* will. *Raleigh.*

Such a patron has frankly, generously, and *uncon-*  
*strainedly* relieved me. *South.*

Mr. Dryden writ more like a scholar; and, though  
the greatest master of poetry, he wanted that easiness,  
that air of freedom and *unconstraint*, which is more sen-  
sibly to be perceived than described. *Felton.*

**UNCONSULTING**, *adj.* Latin *inconsultus*.  
Heady; rash; improvident.

It was the fair Zelmane, Plexirtus's daughter, whom  
*unconsulting* affection, unfortunately born to mewards,  
had made borrow so much of her natural modesty, as to  
leave her more decent raiments. *Sidney.*

**UNCONSUMED**, *adj.* Not wasted; not de-  
stroyed by any wasting power.

Hope never comes,  
That comes to all, but torture without end  
Still urges, and a fiery deluge fed  
With ever-burning sulphur *unconsumed*. *Milton.*

**UNCONSUMMATE**, *adj.* Not consummated.  
Acron came to the sight,

Who left his spouse betrothed, and *unconsummate*  
Night. *Dryden.*

**UNCONTEMN'ED**, *adj.* Not despised.

Which of the peers  
Have *uncontemned* gone by him, or at least  
Stood not neglected? *Shakspeare.*

**UNCONTENTED**, *adj.* } Not contented;  
**UNCONTENT'INGNESS**, *n. s.* } not satisfied: want  
of power to satisfy. Obsolete.

The decreed *uncontentingness* of all other goods, is  
richly repaired by its being but an aptness to prove a  
rise to our love's settling in God. *Boyle.*

Permit me, chief,  
To lead this *uncontented* gift away. *Dryden.*

**UNCONTROVERTED**, *adj.* Not disputed;  
not liable to debate.

One reason of the *uncontroverted* certainty of mathe-  
matical science is, because 'tis built upon clear and set-  
tled significations of names. *Glauville.*

**UNCONTROL'ABLE**, *adj.* } Resistless;  
**UNCONTROL'ABLY**, *adv.* } powerful beyond  
**UNCONTROL'ED**, *adj.* } opposition; ir-  
**UNCONTROL'EDLY**, *adv.* } refragable: the  
adverb corresponding: uncontroled is *unresisted*;  
unopposed; unrefuted: the adverb agreeing.

That Julius Cæsar was so born is an *uncontroled*  
report. *Hayward.*

Mankind avert killing, and being killed; but, when  
the phantasm honour has once possessed the mind, no  
reluctance of humanity is able to make head against it;  
but it commands *uncontroledly*. *Decay of Piety.*

Gaza mourns,  
And all that band them to resist  
His *uncontroable* intent. *Milton.*

*Uncontroably*, and under general consent, many opi-  
nions are passant, which, upon due examination, admit  
of doubt. *Brotne.*

**UNCONVERS'ABLE**, *adj.* Not suitable to  
conversation; not social.

Faith and devotion are traduced and ridiculed, as  
morose *unconversable* qualities. *Rogers.*

**UNCONVERTED**, *adj.* Not converted: not  
persuaded of the truth of Christianity.

Salvation belongeth unto none, but such as call upon  
the name of our Lord Jesus Christ; which nations as  
yet *unconverted* neither do, nor possibly can do, till they  
believe. *Hooker.*

The apostle reminds the Ephesians of the guilt and  
misery of their former *unconverted* estate, when aliens  
from the commonwealth of Israel. *Rogers.*

**UNCONVINCED**, *adj.* Not convinced.

A way not to be introduced into the seminaries of  
those who are to propagate religion, or philosophy,  
amongst the ignorant and *unconvinced*. *Locke.*

**UNCORRECTED**, *adj.* Inaccurate; not po-  
lished to exactness.

I have written this too hastily and too loosely: it  
comes out from the first draught, and *uncorrected*.  
*Dryden.*

**UNCORRUPT**, *adj.* } Honest; upright; not  
**UNCORRUPT'ED**, } tainted with wickedness;  
**UNCORRUPT'NESS**, *n. s.* } not influenced by iniqui-  
tous interest: the derivatives correspond.

In doctrine, shew *uncorruptness*, gravity, sincerity.  
*Titus ii. 7.*

The pleasures of sin, and this world's vanities, are  
censured with *uncorrupt* judgment. *Hooker.*

Such a hero never springs,  
But from the *uncorrupted* blood of kings. *Roscommon.*

**UNCOVER**, *v. a.* To divest of a covering;  
shew openly.

After you are up, *uncover* your bed, and open the  
curtains to air it. *Harvey.*

He covered; but his robe  
*Uncovered* more: so rose the Danite strong,  
Shorn of his strength. *Milton.*

There will certainly come some day or other, to *un-*  
*cover* every soul of us. *Pope's Letters.*

**UNCOUNSELLABLE**, *adv.* Not to be advised.  
It would have been *uncounsellable* to have marched,  
and have left such an enemy at their backs. *Clarendon.*

**UNCOUNTABLE**, *adj.* Innumerable.

Those *uncountable* glorious bodies were not set in the firmament for no other end than to adorn it. *Raleigh.*

**UNCOUNTERFEIT**, *adj.* Genuine; not spurious.

True zeal is not any one single affection of the soul, but a strong mixture of many holy affections, filling the heart with all pious intentions; all, not only *uncounters*, but most fervent. *Sprat.*

**UNCOU'PLE**, *v. a.* To loose dogs from their couples.

The land on which they fought, the' appointed place, In which the' *uncoupled* hounds began the chase. *Dryden.*

**UNCOURTEOUS**, *adj.* } Uncivil; unpolite:  
**UNCOURTEOUSLY**, *adv.* } this both the *adjective*  
**UNCOURTLINESS**, *n. s.* } and the *adverb* and noun substantive correspond.

In behaviour some will say, ever sad, surely sober, and somewhat giving to musing, but never *uncourteous*. *Sidney.*

Though somewhat merrily, yet *uncourteously* he railed upon England, objecting extreme beggary and mere barbarousness unto it. *Ascham.*

The Quakers presented an address, which, notwithstanding the *uncourtliness* of their phrases, the sense was very honest. *Addison.*

The lord treasurer, not entering into those refinements of paying the publick money upon private considerations, hath been so *uncourtly* as to stop it. *Swift.*

**UNCOUTH**, *adj.* } Saxon *uncuð*. Odd;  
**UNCOUTHLY**, *adv.* } strange; unusual: the *adverb* and noun substantive corresponding.

A very *uncouth* sight was to behold, How he did fashion his untoward pace For as he forward moved his footing old, So backward still was turned his wrinkled face. *Spenser.*

To deny himself in the lesser instances, that so when the greater come, they may not have the disadvantage of *uncouthness*, and perfect strangeness, to enhance their difficulty, must be acknowledged reasonable. *Decay of Piety.*

Venetians do not more *uncouthly* ride, Than did their lubber state mankind bestride. *Dryden.*

**UNCREATE**, *v. a.* } To annihilate; reduce  
**UNCREATED**, *adj.* } to nothing: not yet created; not produced by creation.

Tempt me with such affrights no more, Lest what I made I *uncreate*. *Carew.*

How hast thou disturbed Heaven's blessed peace, and into nature brought Misery, *uncreated* till the crime Of thy rebellion? *Milton.*

The next paragraph proves that the idea we have of God is God himself; it being something, as he says, *uncreated*. *Locke.*

**UNCREDITABLENESS**, *n. s.* Want of reputation.

To all other dissuaves, we may add this of the *uncreditableness*: the best that can be said is, that they use wit foolishly, whereof the one part devours the other. *Decay of Piety.*

**UNCROPP'ED**, *adj.* Not cropped; not gathered.

Thy abundance wants Partakers, and *uncropped* falls to the ground. *Milton.*

**UNCROSSED**, *adj.* Uncancelled.  
Such gain the cap of him, that makes them fine, Yet keeps his book *uncrossed*. *Shakespeare. Cymbeline.*

**UNCROUDED**, *adj.* Not straitened by want of room.

An amphitheatre, On its publick shows, unpeopled Rome, And held *uncrouded* nations in its womb. *Addison.*

**UNCROWN'**, *v. a.* To deprive of a crown; deprive of sovereignty.

He hath done me wrong; And therefore I'll *uncrown* him ere 't be long. *Shak.*

Ye powers! See a sacred king *uncrowned*; See your offspring, Albion, bound. *Dryden's Alb.*

**UNCTION**, *n. s.* } Fr. *onction*. The act  
**UNCTUOSITY**, } of anointing; the ungu-  
**UNCTUOUS**, *adj.* } ent or ointment used;  
**UNCTUOUSNESS**, *n. s.* } any thing softening or lenitive: *unctuous* is oily; fat; clammy: *unctuosity* and *unctuousness* mean fatness; oiliness; greasiness.

The *unction* of the tabernacle, the table, the laver, the altar of God, with all the instruments appertaining thereunto, made them for ever holy. *Hooker.*

Dry up thy harrowed veins, and plough-torn leas, Whereof ingrateful man, with liq'rish draughts, And morsels *unctuous*, greases his pure mind, That from it all consideration slips. *Shakespeare.*

Their extreme *unction*, administered as the dying man's viaticum, which St. James mentioned as the ceremony of his recovery, may be added. *Hammond's Fundamentals.*

A wandering fire, Compact of *unctuous* vapour, which the night Condenses, and the cold environs round, Kindled through agitation to a flame. *Milton's Paradise Lost.*

Fuliginous exhalations contain an *unctuosity* in them, and arise from the matter of fuel. *Broune's Vulgar Errors.*

A great degree of *unctuousness* is not necessary to the production of the like effects. *Boyle.*

**UNCTION**, in matters of religion, is used for the character conferred on sacred things by anointing them with oil. *Unctions* were very frequent among the Hebrews. They anointed both their kings and high priests at the ceremony of their inauguration. They also anointed the sacred vessels of the tabernacle and temple, to sanctify and consecrate them to the service of God. The *unction* of kings is supposed to be a ceremony introduced very late among the Christian princes. It is said that none of the emperors were ever anointed before Justinian or Justin. The emperors of Germany took the practice from those of the eastern empire: king Pepin of France was the first who received the *unction*. In the ancient Christian church, *unction* always accompanied the ceremonies of baptism and confirmation. Extreme *unction*, or the anointing persons in the article of death, was also practised by Christians at a very early period, in compliance with the precept of St. James, chap. v., 14th and 15th verses; and this extreme *unction* the Romish church has advanced to the dignity of a sacrament. It is administered to none but such as are affected with some mortal disease, or in a decrepit age. It is refused to impenitent persons, as also to criminals. The parts to be anointed are, the eyes, the ears, the nostrils, the mouth, the hands, the feet, and the reins. The laity are anointed in the palms of the hands, but priests on the back of it; because the palms of their hands have been already consecrated by ordination. The oil with which the sick person is anointed represents the grace of God, which is poured down into the soul, and the prayer used at the time of anointing expresses the remis-



sion of sins thereby granted to the sick person, for the prayer is this: 'By this holy unction, and his own most pious mercy, may the Almighty God forgive thee whatever sins thou hast committed by the sight,' when the eyes are anointed; by the hearing, when the ears are anointed; and so of the other senses.

**UNCUL'LED**, *adj.* Not gathered.

A sweaty reaper from his tillage brought  
First fruits, the green ear, and the yellow sheaf,  
*Unculled*, as came to hand. *Milton's Paradise Lost.*

**UNCUL'PABLE**, *adj.* Not blameable.

Those canons do bind, as they are edicts of nature;  
which the Jews observing as yet unwritten, and there-  
by framing such church orders, as in their law were not  
prescribed, are notwithstanding in that respect *unculpable*.  
*Hooker.*

**UNCULTIVATED**, *adj.* Lat. *incultus*. Not cultivated; not improved by tillage.

The first tragedians found that serious stile  
Too grave for their *uncultivated* age. *Roscommon.*

**UNCUM'BERED**, *adj.* Not burdened; not embarrassed.

Lord of yourself, *uncumbered* with a wife. *Dryden.*

**UNCUR'BABLE**, *adj.* That cannot be curbed or checked. Not used.

So much *uncurbable* her garboiles, Cæsar,  
Made out of her impatience, which not wanted  
Shrewdness of policy. *Shakespeare. Antony and Cleo.*

**UNCURB'ED**, *adj.* Licentious; not restrained.

With frank, and with *uncurbed* plainness,  
Tell us the Dauphin's mind. *Shakespeare. Henry V.*

**UNCURL**, *v. a. & v. n.* To loose from ringlets, or convolutions: free from ringlets.

My fleece of woolly hair now *uncurls*,  
Even as an adder, when she doth unroll  
To do some fatal execution. *Shak. Titus Andronicus.*

Alike in feature both, and garb appear;  
With honest faces, though *uncurled* hair. *Dryden.*

The furies sink upon their iron beds,  
And snakes *uncurled* hang listening round their heads.  
*Pope.*

**UNCURRENT**, *adj.* Not current; not passing in common payment.

Your voice, like a piece of *uncurrent* gold, is not  
cracked within the ring. *Shakespeare. Hamlet.*

**UNCURSE**, *v. a.* } To free from any ex-  
*Uncurs'*, *adj.* } curation; not execrated.

*Uncurse* their souls; their peace is made  
With head, and not with hands. *Shak. Richard II.*

Sir John Hotham unrepurchased, unthreatened, *uncursed*  
by any language or secret imprecation of mine,  
not long after pays his own and his eldest son's heads.  
*King Charles.*

Heaven sure has kept this spot of earth *uncurs'd*,  
To shew how all things were created first. *Waller.*

**UNCUT**, *adj.* Not cut.

We must resign! heaven his great soul doth claim,  
In storms as loud as his immortal fame;  
His dying groans, his last breath shake our isle,  
And trees *uncut* fall for his funeral pile. *Waller.*

A nail *uncut*, and head uncombed she loves;  
And would draw on jack-boots as soon as gloves.  
*Young.*

**UNDAM'**, *v. a.* To open; free from the restraint of mounds.

When the fiery suns too fiercely play,  
And shrivell'd herbs on withering stems decay;  
The wary ploughman, on the mountain's brow,  
*Undams* his watery stores. *Dryden's Georgicks.*

**UNDAM'AGED**, *adj.* Not made worse; not impaired.

Plants will frequent changes try,  
*Undamaged*, and their marriageable arms  
Conjoin with others. *Phillips.*

**UNDAUNTED**, *adj.* } Unsubdued by fear;  
**UNDAUNT'EDLY**, *adv.* } not depressed: the ad-  
**UNDAUNT'NESS**, *n. s.* } verb and noun substan-  
tive corresponding.

Bring forth men children only;  
For thy *undaunted* metal should compose  
Nothing but males. *Shakespeare. Macbeth.*

It shall bid his soul go out of his body *undauntedly*,  
and lift up its head with confidence before saints and  
angels. *South.*

The art of war, which they admired in him, and his  
*undauntedness* under dangers, were such virtues as these  
islanders were not used to. *Pope.*

**UNDAZZ'LED**, *adj.* Not dimmed, or confused by splendor.

Here matter new to gaze the devil met  
*Undazzled*. *Milton's Paradise Lost.*

As *undazzled* and untroubled eyes, as eagles can be  
supposed to cast on glow-worms, when they have been  
newly gazing on the sun. *Boyle.*

**UNDEAF**, *v. a.* To free from deafness.

Though Richard my life's counsel would not hear,  
My death's sad tale may yet *undeaf* his ear. *Shaksp.*

**UNDEBAUCH'ED**, *adj.* Not corrupted by debauchery.

When the world was buxom, fresh, and young,  
Her sons were *undebauched*, and therefore strong.  
*Dryden.*

**UNDECAY'ED**, *adj.* } Not diminished, or  
**UNDECAY'ING**. } impaired.

How fierce in fight, with courage *undecayed*!  
Judge if such warriours want immortal aid. *Dryden.*

If, in the melancholy shades below,  
The flames of friends and lovers cease to grow;  
Yet mine shall sacred last; mine *undecayed*  
Turn on through life, and animate my shade. *Pope.*

**UNDECEIVE**, *v. a.* } To set free from the  
**UNDECEIV'ABLE**, *adj.* } influence of a fallacy:  
**UNDECEIV'ED**. } the adjectives both cor-  
responding.

All men will try, and hope to write as well,  
And not without much pains be *undecieved*. *Roscom.*  
It serves for more certain computation, by how much  
it is a larger and more comprehensive period, and under  
a more *undecivable* calculation. *Holder on Time.*

So far as truth gets round in the world, so far sin  
loses it. Christ saves the world by *undecieving* it.  
*South.*

**UNDECEMVIR**, a magistrate among the an-  
cient Athenians, who had ten other colleagues or  
associates joined with him in the same commission.  
They took care of the apprehending of criminals,  
secured them in the hands of justice, and, when  
they were condemned, took them again into cus-  
tody, that the sentence might be executed on them.  
They were chosen by the tribes, each tribe naming  
its own; and as the number of the tribes after  
Calisthenes was but ten, which made ten members,  
a scribe or notary was added, which made the  
number eleven.

**UNDECEID'ED**, *adj.* } Not determined; not  
**UNDECEI'VE**. } settled: not conclusive.

For one thing, which we have left to the order of the  
church, they had twenty which were *undecided* by the  
express word of God. *Hooker.*

Two nations differing about the antiquity of their  
language, made appeal to an *undecisive* experiment,  
when they agreed upon the trial of a child brought  
up among the wild inhabitants of the desert.  
*Gl. neville.*

Aristotle has left *undecided* the duration of the action  
Dryden.

**UNDECK'**, *v. a.* To deprive of ornaments.

I find myself a traitor;  
For I have given here my soul's consent,  
T' *undeck* the pompous body of a king. *Shakespeare.*  
Eve has *undecked*, save with herself.  
*Milton's Paradise Lost.*

**UNDECLIN'ED**, *adj.* Not grammatically varied by termination; not deviating.

In his track my wary feet have stept;  
His *undeclined* ways precisely kept. *Sandy's Par.*

**UNDEDICATED**, *adj.* Not consecrated or devoted; not inscribed to a patron.

I should let this book come forth *undedicated*, were it not that I look upon this dedication as a duty.  
*Boyle.*

**UNDEEDED**, *adj.* Not signalised by action.

My sword, with an unbattered edge,  
I sheath again *undeeded*. *Shakespeare. Macbeth.*

**UNDEFACED**, *adj.* Not deprived of its form; not disfigured.

Those arms, which for nine centuries had braved  
The wrath of time, on antick stone engraved;  
Now torn by mortars, stand yet *undefaced*,  
On nobler trophies by thy valour raised. *Granville.*

**UNDEFF'ED**, *adj.* Not set at defiance; not challenged.

False traitor, thou broken hast  
The law of arms, to strike foe *undefied*. *Spenser.*

**UNDEFILED**, *adj.* Not polluted; not vitiated; not corrupted.

Whose bed is *undefiled*, and chaste, pronounced.  
*Milton.*

Her Arethusian stream remains unsoiled,  
Unmixed with foreign filth, and *undefiled*;  
Her wit was more than man, her innocence a child.  
*Dryden.*

**UNDEFIN'ABLE**, *adj.* } Not to be circum-  
**UNDEFIN'ED**, } scribed or defined :  
not circumscribed, or explained by a definition.

Why simple ideas are *undefinable* is, that the several terms of a definition signifying several ideas, they can all, by no means, represent an idea, which has no composition at all. *Locke.*

There is no such way to give defence to absurd doctrines, as to guard them round with legions of obscure, doubtful, *undefined* words. *Id.*

**UNDEFORM'ED**, *adj.* Not deformed; not disfigured.

The sight of so many gallant fellows, with all the pomp and glare of war, yet *undeformed* by battles, may possibly invite your curiosity. *Pope.*

**UNDELIBERATED**, *adj.* Not carefully considered.

The prince's *undeliberated* throwing himself into that engagement, transported him with passion. *Clarendon.*

**UNDELIGHT'ED**, *adj.* } Not pleased or af-  
**UNDELIGHT'FUL**, } fected with pleasure.

He could not think of involving himself in the same *undelightful* condition of life. *Clarendon.*

The fiend  
Saw *undelighted* all delight; all kind  
Of living creatures, new to sight. *Milton.*

**UNDEMOL'ISHED**, *adj.* Not razed; not thrown down.

She *undemolished* stood, and even till now  
Perhaps had stood. *Philips.*

They stood by, and suffered Dunkirk to lie *undemo-  
lished*. *Swift.*

**UNDEMON'STRABLE**, *adj.* Not capable of fuller evidence.

Out of the precepts of the law of nature, as of certain common and *undemonstrable* principles, man's rea-

son doth necessarily proceed unto certain more particular determinations. *Hooker.*

**UNDENI'ABLE**, *adj.* } Such as cannot be  
**UNDENI'ABLY**, *adv.* } gainsaid: the adverb  
corresponds.

That age which my grey hairs make seem more than it is, hath not diminished in me the power to protect an *undeniable* verity. *Sidney.*

It is *undeniably* founded in the express affirmations of holy writ. *Hammond.*

**UNDEPLOR'ED**, *adj.* Not lamented.

Rise, wretched widow! rise; nor *undeplored*  
Permit my ghost to pass the Stygian ford;  
But rise prepared to mourn thy perished lord. *Dryden.*

**UNDEPRAV'ED**, *adj.* Not corrupted.

Knowledge dwelt in our *undeprecated* natures, as light in the sun; it is now hidden in us like sparks in a flint. *Granville.*

**UNDEPRIV'ED**, *adj.* Not divested.  
He, *undeprieved*, his beneficence forsook. *Dryden.*

**UNDER**, *prep.* Sax. *under*; Goth., Swed., Danish, and Teut. *under*; Belg. *onder*. In a state of subjection or pupillage to; below; beneath; in a less degree than; for or with less than; by the show of; in a state of oppression by; in a state of being liable to, or limited, or affected, or protected, by.

Ye purpose to keep *under* the children of Judah for bond-men and bond-women. *2 Chron. xxviii. 10.*

*Under* this head may come in the several contests and wars betwixt popes and the secular princes.

As they went *under* sail by him, they held up their hands and made their prayers. *Sidney.*

Medicines take effect sometimes *under*, and sometimes above, the natural proportion of their virtue. *Hooker.*

There is none but he,  
Whose being I do fear, and *under* him  
My genius rebuked, as Antony's was by *Cæsar*. *Shaks.*

I will fight  
Against my cankered country with the spleen  
Of all the *under* fends. *Id. Coriolanus.*

Fruit put in bottles, and the bottles let down into wells under water, will keep long. *Bacon's Nat. Hist.*

To those that live.  
*Under* thy care good rules and patterns give. *Denham.*

Be gathered now ye waters *under* heaven. *Milton.*

After all, they have not been able to give any considerable comfort to the mind, *under* any of the great pressures of this life. *Tillotson.*

When good Saturn, banished from above,  
Was driven to hell, the world was *under* Jove. *Dryden.*

Every man is put *under* a necessity, by his constitution, as an intelligent being, to be determined by his own judgment, what is best for him to do; else he would be *under* the determination of some other than himself, which is want of liberty. *Locke.*

We are thrifty enough not to part with any thing serviceable to our bodies, *under* a good consideration; but make little account of what is most beneficial to our souls. *Ray.*

If it stood always *under* this form, it would have been *under* fire, if it had not been *under* water. *Burnet.*

Man, once fallen, was nothing but a total pollution, and not to be reformed by any thing *under* a new creation. *South.*

It was too great an honour for any man *under* a duke. *Addison.*

Morpheus is represented by the ancient statues *under* the figure of a boy asleep, with a bundle of poppy in his hand. *Id.*

Women and children did not shew the least signs of complaint, *under* the extremity of torture. *Collier.*



Things of another world are *under* the disadvantage of being distant, and therefore operate but faintly.

*Atterbury.*

Mr. Duke may be mentioned *under* the double capacity of a poet and a divine. *Felton on the Classics.*

The prince and princess must be *under* no less amazement. *Pope.*

There are several hundred parishes in England under twenty pounds a-year, and many *under* ten. *Swift.*

This faction, *under* the name of Puritan, became very turbulent during the reign of Elizabeth. *Id.*

'Tis hard to bind any syllogism so close upon the mind, as not to be evaded *under* some plausible distinction. *Baker.*

**UNDERACTION**, *n. s.* Subordinate action; action not essential to the main story.

The least episodes or *underactions*, interwoven in it, are parts necessary, or convenient to carry on the main design. *Dryden.*

**UNDERBEAR'**, *v. a.* Under and bear. To support; endure.

What reverence he did throw away on slaves! Wooing poor craftsmen with the craft of smiles, And patient *underbearing* of his fortune. *Shakespeare.*

**UNDERCLERK'**, *n. s.* Under and clerk. A clerk subordinate to the principal clerk.

Coleby, one of his *under-swearers*, was tried for robbing the treasury, where he was an *underclerk*. *Swift.*

**UNDERDO'**, *v. n.* Under and do. To act below one's abilities.

You overact, when you should *underdo*; A little call yourself again, and think. *Ben Jonson.*  
Nature much oftener overdoes than *underdoes*: you shall find twenty eggs with two yolks, for one that hath none. *Grew.*

**UNDERFACTION**, *n. s.* Under and faction. Subordinate faction; subdivision of a faction.

Christianity loses by contests of *underfactions*. *Decay of Piety.*

**UNDERFELLOW**, *n. s.* Under and fellow. A mean man; a sorry wretch.

They carried him to a house of a principal officer, who with no more civility, though with much more business than those *underfellows* had shewed, in captious manner put interrogatories unto him. *Sidney.*

**UNDERFIL'LING**, *n. s.* Under and fill. Lower part of an edifice.

To found our habitation firmly, first examine the bed of earth upon which we will build, and then the *underfillings*, or substructions, as the ancients called it. *Wotton.*

**UNDERFONG'**, *v. a.* Under and Sax. fangan. To take in hand. Obsolete.

Thou, Menalcas, that by thy treachery Didst *underfong* my lady to wexe so light, Shouldst well be known for such thy villany. *Spenser.*

**UNDERFURNISH**, *v. a.* Under and furnish. To supply with less than enough.

Can we suppose God would *underfurnish* man for the state he designed him, and not afford him a soul large enough to pursue his happiness? *Collier.*

**UNDERGIRD'**, *v. a.* Under and gird. To bind below; to round the bottom.

When they had taken it up, they used helps, *undergirding* the ship. *Acts xvii. 17.*

**UNDERGO'**, *v. a.* Under and go. To suffer; sustain; endure evil; pass through: to be subject to.

I have moved certain Romans To *undergo* with me an enterprize Of honourable, dangerous consequence. *Shakespeare.*

Claudio *undergoes* my challenge; and either I must shortly hear from him, or I will subscribe him a coward. *Id.*

Such they were, who might presume to' have done Much for the king and honour of the state, Having the chiefest actions *undergone*. *Daniel.*

With mind averse, he rather *underwent* His people's will, then gave his own consent. *Dryden.*

Bread put into the stomach of a dying man will *undergo* the alteration that is merely the effect of heat. *Arbuthnot.*

**UNDERGROUND**, *n. s.* Under and ground. Subterraneous space.

They have promised to shew your highness A spirit raised from depth of *underground*. *Shakespeare.*

Washed by streams From *underground*, the liquid ore he drains Into fit molds prepared. *Milton.*

**UNDERGROWTH'**, *n. s.* Under and growth. That which grows under the tall wood.

So thick entwined, As one continued brake, the *undergrowth* Of shrubs, and tangling bushes, had perplexed All path of man, or beast, that passed that way. *Milt.*

**UNDERHAND'**, *adv. & adj.* Under and hand. By means not apparent; secretly.

She *underhand* dealt with the principal men of that country, that they should persuade the king to make Plangus his associate. *Sidney.*

It looks as if I had desired him *underhand* to write so ill against me; but I have not bribed him to do me this service. *Dryden.*

Wood is still working *underhand* to force his impence upon us. *Swift.*

I should take it as a very great favour, from some of my *underhand* detractors, if they would break all measures with me. *Addison.*

**UNDERIV'ED**, *adj.* From derived. Not borrowed.

The ideas it is busied about should be, sometimes at least, those more congenial ones, which it had in itself, *underived* from the body. *Locke.*

**UNDERLABORER**, *n. s.* Under and laborer. A subordinate workman.

About the carriage of one stone for Amasis, the distance of twenty days journey, for three years were employed two thousand chosen men, governors, besides many *underlabourers*. *Wilkins.*

**UNDERLEAF'**, *n. s.* Under and leaf. A species of apple.

The *underleaf*, whose cyder is best at two years, is a plentiful bearer. *Mortimer.*

**UNDERLINE'**, *v. a.* Under and line. To mark with lines below the words; influence secretly.

By mere chance in appearance, though *underlined* with a providence, they had a full sight of the infants. *Wotton.*

**UNDERLING**, *n. s.* From under. An inferior agent; a sorry mean fellow.

The great men, by ambition never satisfied, grew factious; and the *underlings*, glad indeed to be *underlings* to them they hated least, to preserve them from such they hated most. *Sidney.*

O'er all his brethren he shall reign as king, Yet every one shall make him *underling*. *Milton.*

**UNDERMINE'**, *v. a.* Under and mine. To dig cavities under any thing, so that it may fall, or be blown up; to sap.

Making the king's sword strike whom they hated, the king's purse reward whom they loved; and, which is worst of all, making the royal countenance serve to *undermine* the royal sovereignty. *Sidney.*

They, knowing Eleanor's aspiring humour, Have hired me to *undermine* the duchess. *Shakespeare.*

The father secure, Ventures his filial virtue Against whate'er may tempt, whate'er seduce, Allure or terrify, or *undermine*. *Milton.*

He should be warned who are like to *undermine* him, and who to serve him. *Locke.*

**UNDERMOST**, *adj.* This is a kind of superlative, anomalously formed from under. Lowest in place.

Using oil of almonds, we drew up with the *undermost* stone a much greater weight. *Boyle.*

It happens well for the party that is *undermost* when a work of this nature falls into the hands of those who content themselves to attack their principles, without exposing their persons. *Addison.*

**UNDERNEATH**, *adv. & prep.* Compounded from under and *neath*, of which we still retain the comparative *nether*, but in adverbial sense use *beneath*. In the lower place; below: under; beneath.

What is, hath been; what hath been, shall ensue; And nothing *underneath* the sun is new. *Sandys.*

Pray God she prove not masculine ere long If *underneath* the standard of the French She carry armour, as she hath begun. *Shakespeare.*

*Underneath* this stone doth lie As much beauty as could die; Which in life did harbour give To more virtue than could live. *Ben Jonson.*

The monster caught in open day, Inclosed, and in despair to fly away, Howls horrible from *underneath*. *Dryden.*

**UNDEROFFICER**, *n. s.* Under and officer. An inferior officer; one in subordinate authority.

This certificate of excommunication by bishops, of all others, is most in use; and would be more so, were it not for the manifold abuses about its execution committed by *underofficers*. *Ayliffe.*

**UNDEROGATORY**, *adj.* Not derogatory. Of our happiness the apostle gives a negative description; and, to create in us apprehensions *underogatory* from what we shall possess, exalts them above all that we can fancy. *Boyle.*

**UNDERPART**, *n. s.* Under and part. Subordinate or unessential part.

The English will not bear a thorough tragedy, but are pleased that it should be lightened with *underparts* of mirth. *Dryden.*

**UNDERPETTICOAT**, *n. s.* Under and petticoat. The petticoat worn next the body.

They go to bed as tired with doing nothing, as I after quilting a whole *under-petticoat*. *Spectator.*

**UNDERPIN**, *v. a.* Under and pin. To prop; to support.

Victors, to secure themselves against disputes of that kind, *underpin* their acquiescent *jure belli*.

**UNDERPLOT**, *n. s.* Under and plot. A concealed plot.

In a tragi-comedy, there is to be but one main design; and though there be an *underplot*, yet it is subservient to the chief fable. *Dryden.*

The husband is so misled by tricks, and so lost in a crooked intrigue, that he still suspects an *underplot*. *Addison.*

**UNDERPRAISE**, *v. a.* Under and praise. To praise below desert.

In *underpraising* thy deserts, Here find the first deficiency of our tongue. *Dryden.*

**UNDERPRIZE**, *v. a.* Under and prize. To value at less than the worth.

How far The substance of my praise doth wrong this shadow In *underprizing* it; so far this shadow Doth limp behind the substance. *Shakespeare.*

**UNDERPROP**, *v. a.* Under and prop. To support; to sustain.

Here am I left to *underprop* the lord, Who weak with age, cannot support himself. *Shak.*

Thou that art used t' attend the royal throne, And *underprop* the head that bears the crown. *Pent.*

**UNDERPROPORTIONED**, *adj.* Under and proportion. Having too little proportion.

To be haughty, and to make scanty and *underproportioned* returns of civility, plainly tells people, they must be very mannerly. *Collier on Pride.*

**UNDERPULLER**, *n. s.* Under and puller. Inferior or subordinate puller.

The mystery of seconds and thirds is such a master-piece, that no description can reach. These *underpullers* in destruction are such implicit mortals as are not to be matched. *Collier.*

**UNDERRATE**, *n. s.* From the verb. A price less than is usual.

To give all will befit thee well, But not at *underrates* to sell. *Cowley.*

The useless brute is from Newmarket brought, And at an *underrate* in Smithful bought, To turn a mill. *Dryden.*

**UNDERSAY**, *v. n.* Under and say. To say by way of derogation or contradiction. Obsolete.

They say, they con to heaven the highway; But I dare *undersay*, They never set foot on that same trode, But balke their right way, and strain abroad. *Spenser.*

**UNDERSECRETARY**, *n. s.* Under and secretary. An inferior or subordinate secretary.

The Jews have a tradition that Elias sits in heaven, and keeps a register of all men's actions, good or bad. He hath his *undersecretaries* for the several nations, that take minutes of all that passes. *Bacon.*

**UNDERSELL**, *v. a.* Under and sell. To defeat, by selling for less; to sell cheaper than another.

Their stock being rated at six in the hundred, they may, with great gain, *undersell* us, our stock being rated at ten. *Child's Discourse of Trade.*

**UNDERSERVANT**, *n. s.* Under and servant. A servant of the lower class.

Besides the nerves, the bones, as *underservants*, with the muscles, are employed to raise him up. *Grew's Cosmologia.*

**UNDERSSET**, *v. a.* } Under and set. To  
**UNDERSSETTING**, *n. s.* } prop; to support: a  
**UNDERSSETTER**. } support or prop.

The four corners thereof had *undersetters*. *1 Kings vii. 30.*

The merchant-adventurers, being a strong company, and well *underset* with rich men, and good order, held out bravely. *Bacon's Henry VII.*

Their *undersettings*, or pedestals, are, in height, a third part of the column. *Wotton's Architecture.*

**UNDERSHERIFF**, *n. s.* Under and sheriff. The deputy of the sheriff.

The cardinals of Rome call all temporal business, of wars and embassages, *shirreria*, which is *undersheriffries*; as if they were but matters for *undersheriffs* and catchpoles; though many times those *undersheriffries* do more good than their high speculations. *Bacon.*

**UNDERSHOT**, *part. adj.* Under and shoot. Moved by water passing under it.

The imprisoned water payeth the ransom of driving an *undershot* wheel for his enlargement. *Carew's Survey of Cornwall.*

**UNDERSONG**, *n. s.* Under and song. Chorus; burthen of a song.

So ended she; and all the rest around To her redoubted that her *undersong*. *Spenser.*

The challenge to Dametas shall belong; Menalcas shall sustain his *undersong*: Each in his turn your tuneful numbers bring. *Dry.*



UNDERSTAND', *v. a. & v. n.* } Sax. *unþen-*  
 UNDERSTANDING, *n. s. & adj.* } *standan*; Goth.  
 UNDERSTANDINGLY, *adv.* } *understandu.*

*Pret.* understood. To conceive with adequate ideas; to have full knowledge of; comprehend; interpret; suppose to mean: as a verb neuter to have the use of intellectual faculties; to have learning: the noun substantive corresponding: understanding is knowing; skilful: understandingly, with knowledge.

I named them as they passed, and understood  
 Their nature, with such knowledge God endued  
 My sudden apprehension. *Milton.*

Sundays may be understandingly spent in theology. *Id.*

Amorous intent, well understood  
 Of Eve, whose eye darted contagious fire. *Id.*

His sin-might have been greater in that respect: but that it was not so to be understood appears by the opposition. *Stillingfleet.*

When did his pen on learning fix a brand,  
 Or rail at arts he did not understand? *Dryden.*

The most learned interpreters understood the words of sin, and not of Abel. *Locke.*

He hopes you will your foreign taste command,  
 To bear for once with what you understand. *Addison.*

The present physician is a very understanding man. *Id.*

UNDERSTRAPPER, *n. s.* Under and strap.  
 A petty fellow; an inferior agent.

Every understrapper perked up, and expected a regiment, or his son must be a major. *Swift.*

UNDERTAKE', *v. a. & v. n.* } Under and  
 UNDERTAKER, *n. s.* } take. *Pret.* un-

UNDERTAK'ING. } dertook; *part.*

*pass.* undertaken. To attempt; engage in or with; assume; have the charge of; venture; hazard; promise: the noun substantives both correspond: an undertaker is also used particularly for one who engages to build, or to conduct a funeral.

O Lord, I am oppressed, undertake for me. *Isaiah xxxviii. 34.*

The task he undertakes  
 Is numbering sands, and drinking oceans dry. *Shak.*

His name and credit shall you undertake,  
 And in my house you shall be friendly lodged. *Id.*

To the waterside I must conduct your grace,  
 Then give my charge up to Sir Nicholas Vaux,  
 Who undertakes you to your end. *Id. Henry VIII.*

Mighty men they are called; which sheweth a strength surpassing others: and men of renown, that is, of great undertaking and adventurous actions.

*Raleigh's History of the World.*

Antrim was naturally a great undertaker. *Clar.*  
 I undertook alone to wing the abyss. *Milton.*

If this seem too great an undertaking for the humour of our age, then such a sum of money ought to be ready for taking off all such pieces of cloth as shall be brought in. *Temple.*

Fiercer than cannon, and than rocks more hard,  
 The English undertake the unequal war. *Dryden.*

If the curious search the hills after rains, I dare undertake they will not lose their labour.

*Woodward's Natural History.*

While rival undertakers hover round,  
 And with his spade the sexton marks the ground. *Young.*

UNDERTENANT, *n. s.* Under and tenant. A secondary tenant; one who holds from him that holds from the owner.

Settle and secure the undertenants; to the end there may be a repose and establishment of every subject's estate, lord and tenant. *Davies.*

UNDerval'UE, *v. a. & n. s.* } Under and  
 UNDerval'UER, *n. s.* } value. To rate  
 UNDerval'UATION. } low or lightly;

treat as of little worth: little worth; low price: one who so rates things or persons: undervaluation is a rate not equal to worth.

Her name is Portia, nothing undervalued  
 To Cato's daughter. *Shakspeare.*

There is often failing by an undervaluation; for in divers children their ingenerate powers are of slow disclosure. *Wotton.*

An undervaluer of money was Sir Henry Wotton. *Walton.*

I write not this with the least intention to undervalue the other parts of poetry. *Dryden.*

Schooling Luther, an undervaluing term, would make one think that Erasmus had a mean opinion of him. *Atterbury.*

UNDERWOOD, *n. s.* Under and wood. The low trees that grow among the timber.

When you fell underwood, sow haws and sloes. *Mortimer.*

UNDERWORK, *n. s. & i. a.* } Under and  
 UNDERWORKMAN, *n. s.* } work. Subor-

dinate business; petty affairs: to work at a low price or by scanty means: an inferior or subordinate workman.

Nor would they hire under-workmen to employ their parts and learning to disarm their mother of all. *Lesley.*

Thou from loving England art so far,  
 That thou hast underwrought its lawful king,  
 To cut off the sequence of posterity. *Shakspeare.*

Those that are proper for war, fill up the laborious part of life, and carry on the underwork of the nation. *Addison.*

UNDERWRITE', *v. a.* Under and write. To write under something else.

What addition and change I have made, I have here underwritten. *Sanderson.*

UNDESCRIBED, *adj.* Not described.

They urge, that God left nothing in his word undescribed, whether it concerned the worship of God, or outward polity. *Hooker.*

UNDESERVED, *adj.* } Not, merited; not  
 UNDESERVEDLY, *adv.* } obtained by merit, or  
 UNDESER'VER, *n. s.* } default: the adverb and  
 UNDESERV'ING, *adj.* } other derivatives correspond.

This victory obtained with great, and truly not undeserved, honour to the two princes, the whole estates, with one consent, gave the crown to Musidorus.

I was carried to dislike, then to hate; lastly, to destroy this son, undeserving of destruction. *Id.*

He which speaketh no more than edifieth is undeservedly reprehended for much speaking. *Hooker.*

You see how men of merit are sought after; the undeserver may sleep, when the man of action is called on. *Shakspeare.*

It exerts itself promiscuously towards the deserving and the undeserving, if it relieves alike the idle and the indigent. *Addison.*

UNDESIGN'ED, *adj.* } Not intended; not  
 UNDESIGN'ING. } purposed: not acting  
 with set purpose, or with fraud.

He looks upon friendship, gratitude, and sense of honour, as terms to impose upon weak, undesigning minds. *South.*

Where you conduct find,  
 Use and convenience; will you not agree;  
 That such effects could not be undesigned,  
 Nor could proceed but from a knowing mind? *Blackmore.*

**UNDESIR'ABLE**, *adj.* } Not to be wished;  
**UNDESIR'ED**, } not pleasing: not wished;  
**UNDESIR'ING**. } not wishing.

To add what wants

In female sex, the more to draw his love,  
 And render me more equal; and perhaps,  
 A thing not *undesirable*, some time  
 Superior; for inferior, who is free? *Milton.*  
 O goddess-mother, give me back to fate;  
 Your gift was *undesired*, and came too late. *Dryden.*  
 The baits of gifts and money to despise,  
 And look on wealth with *undesiring* eyes:  
 When thou canst truly call these virtues thine,  
 Be wise, and free, by heaven's consent and mine. *Id.*

**UNDESTROY'ABLE**, *adj.* Indestructible; not susceptible of destruction. Not in use.

Common glass, once made, so far resists the violence of the fire, that most chymists think it a body more *undestroyable* than gold itself. *Boyle.*

The essences of those species are preserved whole and *undestroyed*, whatever changes happen to any, or all of the individuals. *Locke.*

**UNDETER'MINATE**, *adj.* } Not settled; not  
**UNDETER'MINABLE**, } decided; contin-  
**UNDETER'MINATENESS**, *n. s.* } gent; indetermin-  
**UNDETERMINA'TION**, } ate: undetermi-  
**UNDETER'MINED**, *adj.* } nateness and un-  
 determination correspond: undeterminable, impos-  
 sible to be decided: undetermined, unsettled;  
 undecided.

On either side the fight was fierce, and surely *undeterminable* without the death of one of the chiefs. *Wotton.*

Extended wide

In circuit, *undetermined*, square or round. *Milton.*

It is difficult to conceive that any such thing should be as matter, *undetermined* by something called form. *Hale.*

He is not left barely to the *undetermination*, incertainty and unsteadiness of the operation of his faculties, without a certain, secret, predisposition of them to what is right. *Id.*

Fluid, slippery, and *undeterminate* it is of itself. *More.*

The idea of a free agent is *undeterminateness* to one part before he has made choice. *Id.*

**UNDEVOTED**, *adj.* Not devoted.

The lords Say and Brooke, two popular men, and most *undevoted* to the church, positively refused to make any such protestation. *Clarendon.*

**UNDIA'PHANOUS**, *adj.* Not pellucid; not transparent.

When the materials of glass, melted with calcined tin, have composed a mass *undiaaphanous* and white, this white enamel is the basis of all concretes that goldsmiths employ in enamelling. *Boyle on Colours.*

**UNDIGESTED**, *adj.* Not concocted; not subdued by the stomach.

Ambition, the disease of virtue, bred Like surfeits from an *undigested* fulness,  
 Meets death in that which is the means of life. *Denham.*

Meat remaining in the stomach *undigested*, dejection of appetite, wind coming upwards, are signs of a phlegmatick constitution. *Arbuthnot.*

**UNDIGHT**, *preterite*. Put off. It is questionable whether it have a present tense. Obsolete.  
 From her fair head her fillets she *undight*,  
 And laid her stole aside. *Sponser.*

**UNDIMIN'ISHED**, *adj.* Not impaired; not lessened.

I still account myself *undiminished* of my largest concessions. *King Charles.*

Sergius, who a bad cause bravely tried,  
 All of a piece, and *undiminished* died. *Dryden.*

The deathless muse, with *undiminished* rays,  
 Through distant times the lovely dame conveys. *Addison.*

**UNDINT'ED**, *adj.* Not impressed by a blow.

I must rid all the sea of pirates: this I greed upon,  
 To part with unhack't edges, and bear back  
 Our barge *undinted*. *Shaksp. Antony and Cleopatra.*

**UNDIPPED**, *adj.* Un and dip. Not dipped; not plunged.

I think thee  
 Impenetrably good; but, like Achilles,  
 Thou hadst a soft Egyptian heel *undipped*  
 And that has made thee mortal. *Dryden.*

**UNDIRECTED**, *adj.* Not directed.

Could atoms, which, with *undirected* flight,  
 Roamed through the void, and ranged the realms of  
 night,

Of reason destitute, without inten ,  
 In order march ? *Blackmore on the Creation.*

**UNDISCERN'ED**, *adj.* } Not observed; not  
**UNDISCERN'EDLY**, *adv.* } discovered; not des-  
**UNDISCERN'IBLE**, *adj.* } cried: the adverb fol-  
**UNDISCERN'IBLY**, *adv.* } lowing corresponds:  
**UNDISCERN'ING**, *adj.* } undiscernible, not to  
 be discovered or descried: the adverb correspond-  
 ing: undiscerning is injudicious; not capable of  
 distinguishing.

I should be guiltier than my guiltiness,  
 To think I should be *undiscernible*,  
 When I perceive your grace. *Shakspere.*

His long experience informed him well of the state  
 of England; but of foreign transactions he was entirely  
*undiscerning* and ignorant. *Clarendon.*

Our profession, though it leadeth us into many truths  
*undiscerned* by others, yet doth disturb their communi-  
 cations. *Broune's Vulgar Errors.*

Some associated particles of salt-petre, by lurking  
*undiscernedly* in the fixed nitre, had escaped the ana-  
 lyzing violence of the fire. *Boyle.*

Many secret indispositions will *undiscernibly* steal  
 upon the soul, and it will require time and close applica-  
 tion to recover it to the spiritualities of religion. *South.*

**UNDISCIPLINED**, *adj.* Not subdued to regularity and order.

A gallant man had rather fight to great disadvantages  
 in the field, in an orderly way, than skuffle with an *un-*  
*disciplined* rabble. *King Charles.*

Divided from those climes where art prevails,  
*Undisciplined* by precepts of the wise,  
 Our inborn passions will not brook controul;  
 We follow nature. *Philips.*

**UNDISCOR'DING**, *adj.* Not disagreeing; not jarring in music.

We on earth, with *undiscording* voice,  
 May rightly answer that melodious noise;  
 As once we did, till disproportioned sin  
 Jarred against nature's chime. *Milton.*

**UNDISCOVERED**, *adj.* } Not seen; not  
**UNDISCOVER'ABLE**. } descried; not found  
 out: not to be found out.

Coming into the falling of a way, which led us into a  
 place, of each side whereof men might easily keep them-  
 selves *undiscovered*, I was encompassed suddenly by a  
 great troop of enemies. *Sidney.*

Time glides with *undiscovered* haste;  
 The future but a length behind the past. *Dryden.*

He was to make up his accounts, and by an easy,  
*undiscoverable* cheat, he could provide against the im-  
 pending distress. *Rogers.*

**UNDISCREET**, *adj.* Not wise; imprudent.  
 If thou be among the *undiscreet*, observe the time. *Ecclus. xxvii.*



**UNDISGUISED**, *adj.* Open; artless; plain; exposed to view.

If thou art Venus,

Disguised in habit, *undisguised* in shape;

O help us captives from our chains t' escape. *Dryden.*

If once they can dare to appear openly and *undisguised*, when they can turn the ridicule upon seriousness and piety, the contagion spreads like a pestilence.

*Ringers.*

**UNDISHONORED**, *adj.* Not dishonored.

Keep then fair league and truce with thy true bed:

I live destined, thou *undishonoured*. *Shakespeare.*

**UNDISMAYED**, *adj.* Not discouraged; not depressed with fear.

Though oft repulsed, again

'They rally *undismayed*. *Philips.*

He aimed a blow against his *undismayed* adversary.

*Arbuthnot.*

**UNDISOBLIGING**, *adj.* Inoffensive.

All this he would have expatiated upon, with connexions of the discourses, and the most easy, *undisobliging* transitions. *Broome.*

**UNDISPERSED**, *adj.* Not scattered.

We have all the redolence of the perfumes we burn upon his altars; the smoke doth vanish ere it can reach the sky; and, whilst it is *undispersed*, it but clouds it.

*Boyle.*

**UNDISPOSED**, *adj.* Not bestowed.

The employments were left *undisposed* of, to keep alive the hopes of impatient candidates. *Swift.*

**UNDISPUTED**, *adj.* Incontrovertible; evident.

You, by an *undisputed* title, are the king of poets.

*Dryden.*

That virtue and vice tend to make those men happy or miserable, who severally practise them, is a proposition of undoubted, and by me *undisputed*, truth.

*Atterbury.*

**UNDISSEMBLED**, *adj.* Openly declared; honest.

Yet are the sons of a clergy, whose *undissembled* and unlimited veneration for the holy scriptures hath not hindered them from paying an inferior, but profound regard, to the best interpreters of it, the primitive writers.

*Atterbury.*

**UNDISSEIPATED**, *adj.* Not scattered; not dispersed.

Such little primary masses as our proposition mentions may remain *undisseipated*.

*Boyle.*

**UNDISSOLVING**, *adj.* Never melting.

Not cold Scythia's *undissolving* snows

Nor the parched Lybian sands thy husband bore,

But mild Parthenope. *Addison.*

**UNDISTEMPERED**, *adj.* Free from disease, or perturbation.

Some such laws may be considered, in some parliament that shall be at leisure from the urgency of more pressing affairs, and shall be cool and *undistempere*.

*Temple.*

**UNDISTINGUISHED**, *adj.* } Not marked so

UNDISTINGUISHABLE, } as to be known

UNDISTINGUISHING, } from each other:

not to be clearly seen: not seeing or discriminating clearly.

These things seem small and *undistinguishable*, Like far off mountains turned into clouds. *Shakespeare.*

Sleep to those empty lids

Is grown a stranger: and day and night

As *undistinguished* by my sleep as sight. *Denham.*

'Tis longer since the creation of angels than of the world, by seven hundred years: whereby we would mark out so much of that *undistinguished* duration as we suppose would have admitted seven hundred annual revolutions of the sun. *Locke.*

No idea can be *undistinguishable* from another from which it ought to be different. *Id.*

*Undistinguishing* complaisance will vitiate the taste of the readers. *Garth.*

**UNDISTRACED**, *adj.* }

Not perplexed

UNDISTRACEDLY, *adv.* } by contrariety of

UNDISTRACEDNESS, *n. s.* } thoughts or desires:

the adverb and noun substantive corresponding.

When Enoch had walked with God, he was so far from being tired with that lasting assiduity, that he admitted him to a more immediate and more *undistracted* communion with himself. *Boyle.*

St. Paul tells us that there is difference betwixt married and single persons; the affections of the latter being at liberty to devote themselves more *undistractedly* to God. *Id.*

The strange confusions of this nation disturb that calmness of mind, and *undistractedness* of thoughts. *Id.*

**UNDISTURBED**, *adj.* }

Free from perturbation;

UNDISTURBEDLY, *adv.* } tion; calm; tranquil;

placid: the adverb corresponding.

To our high raised phantasy present

That *undisturbed* song of pure content. *Milton.*

Our minds are so weak, that they have need of all the assistances that can be procured to lay before them *undisturbedly* the thread and coherence of any discourse. *Locke.*

A state where our imitation of God shall end in the *undisturbed* fruition of him to all eternity. *Atterbury.*

**UNDIVIDED**, *adj.* }

Unbroken; whole; not

UNDIVIDABLE. } parted: not to be parted

or divided.

The best actors in the world for tragedy, pastoral, scene *undividable*, or poem unlimited. *Shakespeare.*

Love is not divided between God and God's enemy: we must love God with all our heart; that is, give him a whole and *undivided* affection. *Taylor.*

**UNDIVULGED**, *adj.* Secret; not promulgated.

Let the great gods

Find out their enemies now. Tremble, thou wretch,

That hast within thee *undivulged* crimes

Unwhipped of justice. *Shakespeare.*

**UNDO**, *v. a.* }

*Pret.* undid; *part.*

UNDOING, *adj. & n. s.* } *pass.* undone. From do.

UNDONE, *adj.* }

To ruin; bring to destruction; loose; unravel; reveal: undoing is ruining; destructive: also the destruction or ruin incurred: undone, not done or performed; ruined.

They false and fearful do their hands *undo*;

Brother, his brother; friend doth friend forsake. *Sidney.*

To the utter *undoing* of some, many things by strictness of law may be done, which equity and honest meaning forbiddeth. *Hooker.*

Do you smell a fault?—I cannot wish the fault *undone*, the issue of it being so proper. *Shakespeare.*

We seem ambitious God's whole work t' *undo*;

Of nothing he made us, and we strive, too,

To bring ourselves to nothing back. *Donne.*

Where, with like haste, through several ways they

run,

Some to *undo*, and some to be *undone*. *Denham.*

Were men so dull, they could not see

That Lyce painted; should they flee,

Like simple birds, into a net

So grossly woven and ill-set;

Her own teeth would undo the knot,

And let all go that she had got. *Waller.*

The great and *undoing* mischief which befalls men,

is by their being misrepresented. *South.*

Now will this woman, with a single glance,

*Undo* what I've been labouring all this while. *Addison.*

False lustre could dizele my poor daughter to her

*Id.* *Guardian.*

**UNDOUBTED**, *adj.* } Indubitable; indis-  
**UNDOUBTEDLY**, *adv.* } putable; unquestion-  
**UNDOUBTING**, *adj.* } able: the adverb cor-  
 responding: undoubting, admitting no doubt.  
 Some fault *undoubtedly* there is in the very resemblance  
 of idolaters. *Hooker.*

His fact, till now, came to an *undoubted* proof.

*Shakespeare.*

They to whom all this is revealed, and received with  
 an *undoubting* faith, if they do not presently set about so  
 easy and so happy a task, must acknowledge themselves  
 in the number of the blind. *Hammond.*

Thou, Spirit, who led'st this glorious eremite  
 Into the desert, his victorious field,  
 Against the spiritual foe, and brought'st him thence,  
 By proof the *undoubted* Son of God inspire. *Milton.*

**UNDRAWN**, *adj.* Not pulled by any external  
 force.

Forth rushed

The chariot of paternal deity  
 Flashing thick flames, and wheel within wheel *undrawn*;  
 Itself instinct with spirit, but convoyed  
 By four cherubic shapes *Milton's Paradise Lost.*

**UNDREAD'ED**, *adj.* Not feared.

Better far,

Than still at hell's dark threshold t' have sat watch,  
 Unnamed, *undreaded*, and thyself half-starved. *Milton.*

**UNDREAMED**, *adj.* Not thought on.

A course more promising,  
 Than a wild dedication of yourselves  
 To unpath'd waters, *undreamed* shores; most certain  
 To miseries enough. *Shakespeare. Winter's Tale.*

**UNDRESS**, *v. a. & n. s.* } From dress. To  
**UNDRESS'ED**, *adj.* } divest of clothes;

strip; divest of ornaments; a loose or negligent  
 dress: the adjective corresponding, and also sig-  
 nifying not prepared or cultivated.

*Undress* you, and come now to bed. *Shakespeare.*

Reform her into ease,

And put her in *undress* to make her please. *Dryden.*  
 Thy vineyard lies half pruned and half *undressed*. *Id.*

**UNDRI'ED**, *adj.* Not dried.

Four pounds of *undried* hops, thorough ripe, will  
 make one of dry. *Mortimer's Husbandry.*

Their titles in the field were dried:

Witness the fresh laments and funeral tears *undried*.  
*Dryden.*

**UNDRI'VEN**, *adj.* not impelled any way.

As wintry winds contending in the sky,  
 With equal force of lungs their titles try:  
 The double rack of heaven,  
 Stands without motion, and the tide *undriven*. *Dryden.*

**UNDROSS'Y**, *adj.* free from recreation.

Of heaven's *undrossy* gold, the gods' array  
 Refulgent, flashed intolerable day. *Pope's Homer.*

**UNDU'BITABLE**, *adj.* Not admitting doubt;  
 unquestionable.

Let that principle, that all is matter, and that there  
 is nothing else, be received for certain and *undubitable*,  
 and it will be easy to be seen what consequences it will  
 lead us into. *Locke.*

**UNDU'E**, *adj.* } *Fr. induë.* Not right; not

**UNDU'LV**, *adv.* } legal; contrary to duty; the ad-  
 verb corresponding.

That proceeding being at that time taxed for rigorous  
 and *undue*, in matter and manner, makes it very proba-  
 ble there was some greater matter against her. *Bacon.*

Men *unduly* exercise their zeal against persons; not  
 only against evil persons, but against those that are the  
 most venerable. *Sprat's Sermons.*

He will not prostitute his power to mean and *undue*  
 ends, nor stoop to little and low arts of courting the  
 people *Atterbury.*

**UNDULATE**, *v. a. & v. n.* } Lat. *undulo*. To  
**UNDULATION**, *n. s.* } drive backward and  
**UNDULARY**, *adj.* } forward; make to  
**UNDULATORY**. } play as waves: to

play, or curl, like waves: the noun substantive cor-  
 responds: undulary and undulatory mean movin-  
 in the manner of waves.

The blasts and *undulary* breaths thereof maintain no  
 certainty in their course. *Brown.*

Worms and leeches will move both ways; and so will  
 most of those animals whose bodies consist of round and  
 annular fibres, and move by *undulation*, that is, like  
 the waves of the sea. *Id.*

Breath vocalized, i. e. vibrated and *undulated*, may  
 in a different manner affect the lips, or tongue, or palate,  
 and impress a swift, tremulous motion, which breath  
 alone passing smooth doth not. *Holter.*

A constant *undulatory* motion is perceived by looking  
 through telescopes. *Arbutnot on Air.*

Through *undulating* air the sounds are sent,  
 And spread o'er all the fluid element. *Pope.*

**UNDUTEOUS**, *adj.* Not performing duty;  
 irreverent; disobedient.

This deceit loses the name of craft,  
 Of disobedience, or *unduteous* title. *Shakespeare.*

In Latium safe he lay,

From his *unduteous* son, and his usurping sway.

*Dryden.*

**UNDUTIFUL**, *adj.* } Not obedient; no  
**UNDU'TIFULLY**, *adv.* } reverent: the adverb  
**UNDUTIFULNESS**, *n. s.* } and noun substantive  
 correspond.

England thinks it no great policy to have that realm  
 planted with English, lest they should grow so *unduti-  
 ful* as the Irish, and become more dangerous.

*Spenser's Ireland.*

Forbidding *undutifulness* to superiors, sedition and  
 rebellion against magistracy. *Tillotson.*

The fish had long in Cæsar's ponds been fed,  
 And from its lord *undutifully* fled. *Dryden's Juvenal.*

**UNDY'ING**, *adj.* Not destroyed; not perish-  
 ing; immortal.

Driven down

To chains of darkness, and the *undying* worm  
*Milton.*

**UNEARN'ED**, *adj.* Not obtained by labor or  
 merit.

Our work is brought to little, though begun  
 Early, and the hour of supper comes *unearned*.  
*Milton.*

**UNEARTH'ED**, *adj.* } Driven from a den in  
**UNEARTH'LY**. } the ground: not of the  
 earth.

The sacrifice

How ceremonious, solemn, and *unearthly*  
 It was t' th' offering! *Shakespeare. Winter's Tale.*

The robber of the fold

Is from his craggy winding haunts *unearthed*.  
*Thomson.*

**UNEASY**, *adj.* } Painful; giving distur-  
**UNEASINESS**, *n. s.* } ance; disturbed; constrain-  
 ed; peevish: the noun substantive corresponding.

Happy low! lie down;

*Uneasy* lies the head that wears a crown.

*Shakespeare.*

On a tottering pinnacle the standing is *uneasy*, and  
 the fall deadly. *Decay of Piety.*

Some servile imitators

Prescribe at first such strict, *uneasy* rules,  
 As they must ever slavishly observe. *Roscommon.*

The soul, *uneasy* and confined from home,

Rests and expatiates in a life to come. *Pops.*

**UNEATEN**, *adj.* Not devoured.



Though they had but two horses left *uneaten*, they had never suffered a summons to be sent to them.

Clarendon.

**UNEATH'**, *adv.* From eath. Saxon *eað*, easy. Not easily. Out of use.

A roaring, hideous sound,  
That all the air with terror filled wide,  
And seemed *uneath* to shake the steadfast ground.

Spenser.

**UNEDIFYING**, *adj.* Not improving in good life.

Our practical divinity is as sound and affecting as that of our popish neighbours is flat and *unedifying*.

Atterbury.

**UNELECTED**, *adj.* Not chosen.

Putting him to rage,

You should have ta'en the advantage of his choler, And passed him *unelected*.

Shakespeare. Coriolanus.

**UNELIGIBLE**, *adj.* Not proper to be chosen.

Both extremes, above or below the proportion of our character are dangerous; and 'tis hard to determine which is most *unelidable*,

Rogers.

**UNEMPLOYED**, *adj.* Not busy; at leisure; idle.

Other creatures all day long

Rove idle, *unemployed*, and less need rest.

Milton.

Pales unhonoured, Ceres *unemployed*,

Were all forgot.

Dryden.

Men soured with poverty, and *unemployed*, easily give into any prospect of change.

Addison.

**UNEMPTIBLE**, *adj.* Not to be emptied; inexhaustible. Obsolete.

Whatever men or angels know, it is as a drop of that *unemptible* fountain of wisdom which hath diversely imparted her treasures.

Hooher.

**UNENDOWED**, *adj.* Not invested; not graced.

A man rather unadorned with any parts of quickness, and *unendowed* with any notable virtues, than notorious for any defect of understanding.

Clarendon.

Aspiring, factious, fierce and loud,

With grace and learning *unendowed*.

Swift.

**UNENGAGED**, *adj.* Not engaged; not appropriated.

When we have sunk the only *unengaged* revenues left, our incumbrances must remain perpetual.

Swift.

**UNENJOYED**, *adj.* Not obtained; not possessed.

The more we have, the meaner is our store;

The *unenjoying*, craving wretch is poor.

Creech.

Each day's a mistress *unenjoyed* before;

Like travellers, we're pleased with seeing more.

Dryden.

**UNENLARGED**, *adj.* Not enlarged; narrow; contracted.

*Unenlarged* souls are disgusted with the wonders which the microscope has discovered concerning the shape of little animals, which equal not a pepper-corn.

Watts.

**UNENLIGHTENED**, *adj.* Not illuminated.

Moral virtue, natural reason, *unenlightened* by revelation, prescribes.

Atterbury.

**UNENSLAVED**, *adj.* Free; not enthralled.

By thee

She sits a sov'reign, *unenslaved* and free.

Addison.

**UNENTERTAINING**, *adj.* Giving no delight; giving no entertainment.

It was not *unentertaining* to observe by what degrees I ceased to be a witty writer.

Pope.

**UNENTOMBED**, *adj.* Unburied; uninterred.

Think'st thou *unentombed* to cross the floods?

Dryden.

**UNENVIED**, *adj.* Exempt from envy.

The fortune which nobody sees makes a man happy and *unenvied*.

Bacon.

This loss,

Thus far at least recovered, hath much more

Established in a safe, *unenvied* throne,

Yielded with full consent.

Milton.

**UNEQUAL**, *adj.* Lat. *inequalis*. Not even  
**UNEQUALABLE**, } or equal; inferior; partial;  
**UNEQUALLED**, } ill matched: unequable is  
**UNEQUALLY**, *adv.* } diverse; different from itself: the other adjective and adverb follow the sense of unequal.

There sits deformity to mock my body;

To shape my legs of an *unequal* size.

Shakespeare.

Among *unequals*, what society?

Milton.

Dorinda came, divested of the scorn,

Which the *unequalled* maid so long had worn.

Roscommon.

Christ's love to God is filial and *unequalable*.

Boyle.

March and September, the two equinoxes, are the most unsettled and *unequable* of seasons.

Bentley.

When we view some well-proportioned dome,

No single parts *unequally* surprize;

All comes united to the admiring eyes.

Pope.

**UNEQUITABLE**, *adj.* Not equitable; not just.

We force him to stand to those measures which we think too *unequitable* to press upon a murderer.

Deacy of Piety.

**UNEQUIVOCAL**, *adj.* Not equivocal.

This conceit is erroneous, making putrefactive generations correspondent unto seminal productions, and conceiving *unequivocal* effects, and univocal conformity unto the efficient.

Broune.

**UNERABLENESS**, *n.s.* Incapacity of error.

The many innovations of that church witness the danger of presuming upon the *unerableness* of a guide.

Deacy of Piety.

**UNERRING**, *adj.* Latin *inerrans*. Com-

**UNERRINGLY**, *adv.* } mitting no mistake; capable of no mistake: the adverb corresponding.

The king a mortal shaft lets fly

From his *unerring* hand.

Denham.

Is this the *unerring* power? the ghost replied;

Nor Phoebus flattered; nor his answers lied.

Dryden.

The irresistible infirmities of our nature make a perfect and *unerring* obedience impossible.

Rogers.

What those figures are, which should be mechanically adapted to fall so *unerringly* into regular compositions, is beyond our faculties to conceive.

Glanville.

**UNESCHEWABLE**, *adj.* Inevitable; unavoidable; not to be escaped. Not in use.

He gave the mayor sufficient warning to shift for safety, if an *uneschewable* destiny had not altered him.

Carew.

**UNESPIED**, *adj.* Not seen; undiscovered; undescried.

Treachery, guile, and deceit, are things which may for a while, but do not long, go *unespied*.

Hooker.

Nearer to view his prey, and *unespied*

To mark what of their state he more might learn.

Mil.

**UNESSENTIAL**, *adj.* Not being of the last importance; not constituting essence.

The void profound

Of *unessential* night receives him next.

Milton.

Tillotson was moved rather with pity than indignation, towards the persons of those who differed from him in the *unessential* parts of Christianity.

Addison.

**UNEVEN**, *adj.* } Unequal in surface; not  
**UNEVENNESS**, *n.s.* } level; not suitable: the noun substantive corresponding.

Some said that it was best to fight with the Turks in that *uneven*, mountain country, where the Turk's chief strength consisting in the multitude of his horsemen should stand him in small stead.

Knolles

The Hebrew verse consists of *uneven* feet.

Peacock

2 G 2

Edward II., though an unfortunate prince, and by reason of the troubles and *unevenness* of his reign, the very law itself had many interruptions; yet it held its current in that state his father had left it in. *Hale.*

**UNEVITABLE**, *adj.* Lat. *inevitabilis*; Fr. *inevitable*. Inevitable; not to be escaped.

So jealous is she of my love to her daughter, that I never yet begin to open my mouth to the *unevitable* Philoclea, but that her unwished presence gave my tale a conclusion before it had a beginning. *Sidney.*

**UNEXACTED**, *adj.* Not exacted; not taken by force.

All was common, and the fruitful earth Was free, to give her *unexact* birth. *Dryden.*

**UNEXAMINED**, *adj.* Not enquired; not tried; not discussed.

They utter all they think, with a violence and indisposition, *unexamined*, without relation to person, place, or fitness. *Ben Jonson.*

The most pompous seeming knowledge, that is built on the *unexamined* prejudices of sense, stands not. *Glanville.*

**UNEXAM'PLED**, *adj.* Not known by any precedent or example.

Charles returned with *unexampled* loss from Algiers. *Raleigh.*

O *unexampled* love!

Love no where to be found less than divine. *Milton.*

I tune my pipe afresh, each night and day, Thy *unexampled* goodness to extol. *Philips.*

**UNEXCEPTIONABLE**, *adj.* Not liable to any objection.

Personal prejudices should not hinder us from pursuing, with joint hands and hearts, the *unexceptionable* design of this pious institution. *Atterbury.*

**UNEXCISED**, *adj.* Not subject to the payment of excise.

And beggars taste thee *unexcised* by kings. *Browne.*

**UNEXCOGITABLE**, *adj.* Not to be found out.

Wherein can man resemble his *unexcogitable* power and perfectness! *Raleigh.*

**UNEXECUTED**, *adj.* Not performed; not done.

Leave *unexecuted* your own renowned knowledge. *Shak.*

**UNEXEMPT**, *adj.* Not free by peculiar privilege.

You invert the covenants of her trust, And harshly deal, like an ill borrower, With that which you received on other terms, Scorning the *unexempt* condition

By which all mortal frailty must subsist. *Milton.*

**UNEXEMPLIFIED**, *adj.* Not made known by instance or example.

Those wonders a generation returned with so *unexemplified* an ingratitude, that it is not the least of his wonders, that he would vouchsafe to work any of them. *Boyle.*

**UNEX'ERCISED**, *adj.* Not practised; not experienced.

Messapus, with his ardour, warms A heartless train, *unexercised* in arms. *Dryden.*

Abstract ideas are not so obvious to the yet *unexercised* mind as particular ones. *Locke.*

**UNEXHAUSTED**, *adj.* Lat. *inexhaustus*. Not spent; not drained to the bottom.

What avail her *unexhausted* stores, While proud oppression in her vallies reigns? *Addison.*

**UNEXPANDED**, *adj.* Not spread out.

Every foetus bears a secret hoard;

With sleeping, *unexpanded* issue stored. *Blackmore.*

**UNEXPECTED**, *adj.* } Not thought on;

**UNEXPECT'EDLY**, *adv.* } sudden; not provided

**UNEXPECT'EDNESS**, *n. s.* } against: the adverb and noun substantive corresponding.

Have wisdom to provide always beforehand, that those evils overtake us not, which death *unexpected* doth use to bring upon careless men; and although it be sudden in itself, nevertheless, in regard of our prepared minds, it may not be sudden. *Hooker.*

O *unexpected* stroke! worse than of death!

Must I thus leave thee, paradise? *Milton.*

Oft he seems to hide his face,

But *unexpectedly* returns. *Id.*

**UNEXPE'DIENT**, *adj.* Inconvenient; not fit. Musick would not be *unexpedient* after meat, to assist and cherish nature in her first concoction, and send their minds back to study in good tune. *Milton.*

**UNEXPERIENCED**, *adj.* Not versed; not acquainted by trial or practice.

Long use may strengthen men against many such inconveniences, which, to *unexperienced* persons, may prove very hazardous. *Wilkins.*

These reproaches are the extravagant speeches of those *unexperienced* in the things they speak against. *Tillotson.*

The smallest accident intervening, often produces such changes, that a wise man is just as much in doubt of events, as the most ignorant and *unexperienced*. *Swift.*

**UNEXPERT**, *adj.* Lat. *inexpertus*. Wanting skill or knowledge.

Receive the partner of my inmost soul:

Him you will find in letters, and in laws,

Not *unexpert*. *Prior.*

**UNEXPLOR'ED**, *adj.* Not searched out.

Oh! say what stranger cause, yet *unexplored*,

Could make a gentle belle reject a lord? *Pope.*

Under thy friendly conduct will I fly

To regions *unexplored*. *Dryden.*

**UNEXPOS'ED**, *adj.* Not laid open to censure.

They will endeavour to diminish the honour of the best treatise, rather than suffer the little mistakes of the author to pass *unexposed*. *Watts.*

**UNEXPRESSIBLE**, *adj.* Ineffable; not to be uttered.

What *unexpressible* comfort does overflow the pious soul, from a conscience of its own innocency! *Tillotson.*

**UNEXPRES'SIVE**, *adj.* Not having the power of uttering or expressing; inexpressible; unutterable. Not used.

With nectar pure his ouzy locks he laves,

And hears the *unexpressive*, nuptial song,

In the blest kingdoms, meek, of joy and love. *Milton.*

**UNEXTEND'ED**, *adj.* Occupying no assignable space; having no dimensions.

How inconceivable is it that a spiritual, i. e. an *unextended* substance, should represent to the mind an extended one, as a triangle! *Locke.*

**UNEXTINGUISHABLE**, *adj.* Fr. *inextinguable*. Unquenchable; not to be put out.

Pain of *unextinguishable* fire

Must exercise us, without hope of end. *Milton.*

What native, *unextinguishable* beauty, must be impressed through the whole, which the defecation of so many parts by a bad printer, and a worse editor, could not hinder from shining forth! *Bentley.*

**UNEXTINGUISHED**, *adj.* Lat. *inextinctus*.

Not quenched; not put out.

E'en o'er your cold, your ever sacred urn,

His constant flame shall *unextinguished* burn. *Lyttleton.*

An ardent thirst of honour; a soul unsatisfied with all it has done, and an *unextinguished* desire of doing more. *Dryden.*

**UNFAD'ED**, *adj.* Not withered.

For her the *unfading* rose of Eden blooms, And wings of seraphs shed divine perfumes. *Pope.*



**UNFAIL'ING**, *adj.* Certain; not missing.

Nothing the united voice of all history proclaims so loud, as the certain, *unfailing* curse, that has pursued, and overtook sacrilege. *South.*

**UNFA'IR**, *adj.* Disingenuous; subdolous; not honest.

You come, like an *unfair* merchant, to charge me with being in your debt. *Swift.*

**UNFAITH'FUL**, *adj.* } Perfidious; treacher-

**UNFAITH'FULLY**, *adv.* } ous; impious: the ad-

**UNFAITH'FULNESS**, *n. s.* } verb and noun substant-

ive agree in sense.  
If you break one jot of your promise, I will think you the most atheistical break-promise, and the most unworthy, that may be chosen out of the gross band of the *unfaithful*. *Shakespeare.*

There is danger of being *unfaithfully* counselled; and more for the good of them that counsel, than for him that is counselled. *Bacon.*

As the obscurity of what some writers deliver makes it very difficult to be understood; so the *unfaithfulness* of too many others makes it unfit to be relied on. *Boyle.*

**UNFAL'LOWED**, *adj.* Not followed.

The *unfallowed* glebe  
Yearly o'ercomes the granaries with stores  
Of golden wheat. *Philips.*

**UNFAMIL'IAR**, *adj.* Unaccustomed; such as is not common.

The matters which we handle, seem, by reason of newness, dark, intricate, *unfamiliar*. *Hooker.*

Chaucer's uncouth, or rather *unfamiliar* language, deters many readers. *Warton's Spenser.*

**UNFASH'IONABLE**, *adj.* } Not modish; not

**UNFASH'IONED**, *adj.* } according to the

**UNFASH'IONABLY**, *adv.* } reigning custom:

**UNFASH'IONABLENESS**, *n. s.* } unfashioned is, un-

formed, imperfect: the adverb and noun substan-

tive correspond with unfashionable.  
Deformed, unfinished, sent before my time  
Into this breathing world, scarce half made up;  
And that so lamely and *unfashionably*,

That dogs bark at me. *Shakespeare. Richard III.*

A lifeless lump, *unfashioned* and unframed,  
Of jarring seeds, and justly Chaos named. *Dryden.*

Natural *unfashionableness* is much better than apish, affected postures. *Locke.*

A man writes good sense, but he has not a happy manner of expression. Perhaps he uses obsolete and *unfashionable* language. *Watts's Logick.*

**UNFASTEN**, *v. a.* To loose; unfix.

He had no sooner *unfastened* his hold, but that a wave forcibly spoiled his weaker hand of hold. *Sidney.*

**UNFATHERED**, *adj.* Fatherless; having no father.

They do observe  
*Unfathered* heirs, and loathly births of nature. *Shakespeare.*

**UNFATHOMABLE**, *adj.* } Not to be sound-

**UNFATHOMABLY**, *adv.* } ed by a line; illi-

mitable: the adverb corresponding.  
The Titan race  
He singed with lightning, rowl within the *unfathomed*  
space. *Dryden.*

A thousand parts of our bodies may be diversified in all the dimensions of solid bodies; which overwhelms the fancy in a new abyss of *unfathomable* number. *Bentley's Sermons.*

Covered pits, *unfathomably* deep. *Thomson.*

**UNFATIGUED**, *adj.* Unwearied; untired.

Over dank, and dry,  
They journey toilsome, *unfatigued* with length  
Of march. *Philips.*

**UNFAVORABLY**, *adv.* Unkindly; unpropitiously.

Bacon speaks not *unfavourably* of this. *Glanville.*

**UNFEARED**, *adj.* Not affrighted; not terrified. Not in use.

Just men,  
Though heaven should speak with all his wrath at once,  
That with his breath the hinges of the world  
Did crack, we should stand upright and *unfeared*.  
*Ben Jonson.*

**UNFEATHERED**, *adj.* Implumous; naked of feathers.

The mother nightingale laments alone;  
Whose nest some prying churl had found, and thence  
By stealth conveyed the *unfeathered* innocence. *Dryden.*

**UNFEATURED**, *adj.* Deformed; wanting regularity of features.

Visage rough,  
Deformed, *unfeatured*, and a skin of buff. *Dryden.*

**UNFED**, *adj.* Not supplied with food.

Each bone might through his body well be read,  
And every sinew seen, through his long fast;  
For nought he cared, his carcass long *unfed*. *Spenser.*

A grisly foaming wolf, *unfed*,  
Met me unarmed, yet trembling fled. *Roscommon.*

**UNFEED**, *adj.* Unpaid.  
It is like the breath of an *unfed* lawyer; you gave me nothing for 't. *Shakespeare. King Lear.*

**UNFEELING**, *adj.* Insensible; void of mental sensibility.

Dull, *unfeeling*, barren ignorance,  
Is made my gaoler to attend on me. *Shakespeare.*

Unlucky Welsted! thy *unfeeling* master,  
The more thou ticklest, gripes his fist the faster. *Pope.*

**UNFEIGN'ED**, *adj.* } Not counterfeited; not

**UNFEIGN'EDLY**, *adv.* } hypocritical; real; sin-

cere: the adverb corresponding.  
He pardoneth all them that truly repent, and *un-*  
*feignedly* believe his holy gospel. *Common Prayer.*

Prince dauphin, can you love this lady?  
—I love her most *unfeignedly*. *Shakespeare.*

Sorrow *unfeigned*, humiliation meek. *Milton.*

**UNFELT**, *adj.* Not felt; not perceived.

All my treasury  
Is but yet *unfelt* thanks, which, more enriched,  
Shall be your love and labour's recompence. *Shakspeare.*

Her looks, from that time, infused  
Sweetness into my heart, *unfelt* before. *Milton.*

**UNFENCED**, *adj.* Naked of fortification.  
I'd play incessantly upon these jades;  
Even till *unfenced* desolation  
Leave them as naked as the vulgar air. *Shakespeare.*

**UNFERMENTED**, *adj.* Not fermented.  
All such vegetables must be *unfermented*; for fermentation changes their nature. *Arbutnot.*

**UNFERTILE**, *adj.* Not fruitful; not prolific.

Peace is not such a dry tree, such a sapless *unfertile*  
thing, but that it might fructify and increase. *Decay of Piety.*

**UNFETTER**, *v. a.* To unchain; to free from shackles.

*Unfetter* me with speed:  
I see you troubled that I bleed. *Dryden.*

This most useful principle may be *unfettered*, and restored to its native freedom of exercise. *Adairson.*

**UNFIGURED**, *adj.* Representing no animal form.

In *unfigured* paintings the noblest is the imitation of marbles, and of architecture, as arches, freezes. *Wotton.*

**UNFILLED**, *adj.* Not filled; not supplied; vacant.

Come not to table, but when thy need invites thee;  
and, if thou beest in health, leave something of thy ap-  
petite *unfilled*. *Taylor.*

The throne of my forefathers  
Still stands *unfilled*. *Addison's Cato.*

**UNFILIAL**, *adj.* Unsuitable to a son.

You offer him a wrong,

Something *unfilial*. *Shakspeare.*  
Teach the people that to hope for heaven is a mer-  
cenary, legal, and therefore *unfilial*, affection. *Boyle.*

**UNFINISHED**, *adj.* Incomplete; not brought  
to an end; imperfect.

It is for that such outward ornament  
Was lavished on their sex, that inward gifts  
Were left for haste *unfinished*. *Milton.*

I did dedicate to you a very *unfinished* piece.  
*Dryden.*

**UNFIRM**, *adj.* Weak; feeble. Obsolete.

Our fancies are more giddy and *unfirm*  
Than women's are. *Shakspeare. Twelfth Night.*

Take the time, while staggering yet they stand,  
With feet *unfirm*, and prepossess the strand. *Dryden.*

**UNFIT**, *adj. & v. a.* } Improper; unsuitable :  
**UNFITLY**, *adv.* } which unfitting also means :  
**UNFITNESS**, *n. s.* } the verb active means to  
**UNFITTING**, *adj.* } disqualify : unfitly and un-  
fitness correspond.

*Unfit* he was for any worldly thing,  
And eke unable once to stir or go. *Spenser.*

Others, reading to the church those books which the  
apostles wrote, are neither untruly nor *unfitly* said to  
preach. *Hooker.*

In setting down the form of common prayer, there  
was no need that the book should mention either the  
learning of a fit, or the *unfitness* of an ignorant minister.  
*Id.*

Although monosyllables, so rife in our tongue, are  
*unfitting* for verses, yet are they most fit for expressing  
briefly the first conceits of the mind. *Camden.*

A genius that can hardly take in the connection of  
three propositions, is utterly *unfit* for speculative stu-  
dies. *Watts.*

**UNFIX**, *v. a.* To loosen; make less fast.

Who can impress the forest, bid the tree  
*Unfix* his earth-bound root? *Shakspeare.*

Stiff with eternal ice, and hid in snow,  
The mountain stands; nor can the rising sun  
*Unfix* her frosts, and teach them how to run. *Dryden.*

Her lovely looks a sprightly mind disclose,  
Quick as her eyes, and as *unfixed* as those. *Pope.*

**UNFLEDGED**, *adj.* That has not yet the full  
furniture of feathers; young.

The friends thou hast, and their adoption tried,  
Grapple them to thy soul with hooks of steel :  
But do not dull thy palm with entertainment  
Of each new-hatched, *unfledged* comrade. *Shakspeare.*

*Unfledged* actors learn to laugh and cry. *Dryden.*  
**UNFLESH'ED**, *adj.* Not fleshed; not seasoned  
to blood; raw.

Nature his limbs only for war made fit ;  
With some less foe thy *unfleshed* valour try. *Cowley.*

As a generous *unfleshed* hound, that hears  
From far the hunter's horn and chearful cry,  
So will I haste. *Dryden's Cleomenes.*

**UNFOIL'ED**, *adj.* Unsubdued; not put to the  
work.

The usurped powers thought themselves secure in the  
strength of an *unfoiled* army of twenty thousand men,  
and in a revenue proportionable. *Temple.*

**UNFOLD**, *v. a.* To expand; spread; open;  
tell; declare; discover.

*Unfold* the passion of my love ;  
Surprise her with discourse of my dear faith. *Shak.*

Ship and men *unfold*  
That to this isle convaid you. *Chapman.*

I saw on him rising  
Out of the water, heaven above the clouds  
Unfold her crystal doors; thence on his head  
A perfect dove descend. *Milton.*  
We are the inhabitants of the earth, and endowed  
with understanding; doth it then properly belong to  
us, to examine and *unfold* the works of God ?

*Burnet.*

**UNFOOL**, *v. a.* To restore from folly.

Have you any way to *unfool* me again ? *Shakspeare.*

**UNFORBID**, *adj.* } Not prohibited :  
**UNFORBID'DEN**, } state of not being  
**UNFORBID'DENNESS**, *n. s.* } prohibited.

If *unforbid* thou mayest unfold

What we, not to explore the secrets, ask  
Of his eternal empire. *Milton's Paradise Lost.*

The bravery you are so severe to is no where ex-  
pressly prohibited in scripture; and this *unforbidden-*  
ness they think sufficient to evince that the sumptu-  
ousness you condemn is not in its own nature sinful.

*Boyle.*

A good man not only forbears those gratifications  
which are forbidden by reason and religion, but even  
restrains himself in *unforbidden* instances. *Atterbury.*

**UNFORCED**, *adj.* } Not compelled; not  
**UNFOR'CIBLE**. } constrained; not accom-  
plished by force: unforcible is wanting strength  
or force.

The same reason which causeth to yield that they  
are of some force in the one, will constrain to acknow-  
ledge that they are not in the other altogether *unforci-*  
ble. *Hooker.*

This gentle and *unforced* accord of Hamlet  
Sits smiling to my heart. *Shakspeare. Hamlet.*

No more can impure man retain and move  
In that pure region of a worthy love,  
Than earthly substance can, *unforced*, aspire,  
And leave his nature, to converse with fire. *Donne.*

**UNFOREBODING**, *adj.* Giving no omens.  
Unnumbered birds glide through the aerial way,  
Vagrants of air, and *unforeboding* stray. *Pope.*

**UNFOREKNOWN**, *adj.* Not foreseen by  
prescience.

It had no less proved certain, *unforeknown*. *Milton.*

**UNFORESEEN**, *adj.* Not known before it  
happened.

*Unforeseen*, they say, is unprepared. *Dryden.*

**UNFORESKINNED**, *adj.* Circumcised.  
Won by a Philistine from the *unforeskinned* race.

*Milton.*

**UNFORFEITED**, *adj.* Not forfeited.  
This was the ancient, and is yet the *unforfeited* glory  
of our religion. *Roger's Sermons.*

**UNFORGIV'ING**, *adj.* Relentless; implaca-  
ble.

The sow with her broad snout for rooting up  
The intrusted seed, was judged to spoil the crop ;  
The covetous churl, of *unforgiving* kind,  
The offender to the bloody priest resigned. *Dryden.*

**UNFORGOTTEN**, *adj.* Not lost to memory.  
The thankful remembrance of so great a benefit re-  
ceived, shall for ever remain *unforgotten*. *Knolles.*

**UNFORM'ED**, *adj.* Not modified into regular  
shape.

All putrefaction, being a dissolution of the first form,  
is a mere confusion, and *unformed* mixture of the parts.  
*Bacon.*

The same boldness discovers itself in the several ad-  
ventures he meets with during his passage through the  
regions of *unformed* matter. *Speciator.*

**UNFORSA'KEN**, *adj.* Not deserted.  
They extend no farther to any sort of sins continued



in or *unforsaken*; than as they are reconcilable with sincere endeavours to forsake them.

*Hammond's Fundamentals.*

**UNFORTIFIED, adj.** Not secured by walls or bulwarks.

It shews a will most incorrect to heaven ;  
A heart *unfortified*, a mind impatient ;  
An understanding simple, and unschooled. *Shaksp.*  
Their weak heads, like towns *unfortified*,  
\*Twist sense and nonsense daily change their side.

*Pope.*

**UNFORTUNATE, adj.** } Not successful ; un-  
**UNFORTUNATELY, adv.** } prosperous ; wanting  
**UNFORTUNATENESS, n. s.** } luck ; unhappy : the  
adverb and noun substantive corresponding.

Unconsulting affection *unfortunately* born to me-  
wards, made Zelmene borrow so much of her natural  
modesty, as to leave her more decent raiments.

*Sidney.*

O me, the only subject of the destinies displeasure,  
whose greatest fortunateness is more *unfortunate* than  
my sister's greatest *unfortunateness*.

*Id.*

Vindictive persons live the life of witches, who, as  
they are mischievous, end *unfortunate*.

*Bacon.*

She kept her countenance when the lid, removed,  
Disclosed the heart *unfortunately* loved.

*Dryden.*

**UNFOUGHT, adj.** Un and fought. Not fought.

They used such diligence in taking the passages,  
that it was not possible they should escape *unfought*  
with.

*Knolles.*

**UNFOULED, adj.** Unpolluted ; uncorrupted ;  
not soiled.

The humour and tunics are purely transparent, to  
let in light *unfouled* and unsophisticated by any tinc-  
ture.

*More.*

**UNFOUND, adj.** Not found ; not met with.

Somewhat in her excelling all her kind,  
Excited a desire till then unknown ;  
Somewhat *unfound* or found in her alone.

*Dryden.*

**UNFRAM'ABLE, adj.** Not to be moulded.  
Not used.

The cause of their disposition so *unframable* unto  
societies, wherein they live, is for that they discern  
not aright what force these laws ought to have.

*Hooker.*

**UNFRAMED, adj.** Not formed ; not fashion-  
ed.

A lifeless lump, unfashioned, and *unframed*,  
Of jarring seeds, and justly chaos named.

*Dryden.*

**UNFRE'QUENT, adj.** } Uncommon ; not  
**UNFREQUENT'ED, adj.** } happening often ;  
**UNFREQUENTLY, adv.** } rarely visited : the  
adverb follows the sense of unfrequent.

Many *unfrequented* plots there are,  
Fitted by kind for rape and villainy.

*Shakspeare.*

They, like Judas, desire death, and not *unfrequently*  
pursue it.

*Broune's Vulgar Errors.*

How well your cool and *unfrequented* shade  
Suits with the chaste retirements of a maid !

*Roscommon.*

With what caution does the hen provide herself  
a nest in places *unfrequented*, and free from noise !

*Addison.*

**UNFRIEND'ED, adj.** } Wanting friends ;  
**UNFRIEND'EDLY, adv.** } uncountenanced ; un-  
**UNFRIENDLINESS, n. s.** } supported : unfriendly  
is unkindly ; not like a friend : and the noun sub-  
stantive corresponds.

These parts to a stranger,  
Unguided and *unfriended*, often prove  
Rough and inhospitable. *Shakspeare. Twelfth Night.*  
You might be apt to look upon such disappointments

as the effects of an *unfriendliness* in nature or fortune  
to your particular attempt.

*Boyle.*

This fear is not that servile dread, which flies from  
God as an hostile *unfriendly* being, delighting in the  
misery of his creatures.

*Rogers.*

**UNFROZEN, adj.** Not congealed to ice.

Though the more aqueous part will, by the loss of  
their motion, be turned into ice, yet the more subtle  
parts remain *unfrozen*.

*Boyle.*

**UNFRUITFUL, adj.** Not prolific ; not fer-  
tile.

Lay down some general rules for the knowing of  
fruitful and *unfruitful* soils.

*Mortimer's Husbandry.*

Ah ! hopeless, lasting flames ! like those that burn  
To light the dead, and warm the *unfruitful* urn.

*Pope.*

**UNFULFILL'ED, adj.** Not fulfilled.

Fierce desire,

Still *unfulfilled* with pain of longing, pines.

*Milten.*

**UNFURL, v. a.** To expand ; unfold ; open.

The next motion is that of *unfurling* the fan, in  
which are several little sirts and vibrations.

*Addison.*

Her ships anchored, and her sails *unfurled*  
In either India.

*Prior.*

**UNFURNISH, v. a.** To deprive ; to strip ; to  
divest ; leave naked.

Thy speeches

Will bring me to consider that which may  
*Unfurnish* me of reason.

*Shakspeare.*

It derogates not more from the goodness of God, that  
he has given us minds *unfurnished* with those ideas of  
himself, than that he hath sent us into the world with  
bodies unclothed.

*Locke.*

I live in the corner of a vast *unfurnished* house.

*Swift.*

**UNGAIN, adj.** } Saxon, ungenz. Awkward ;  
**UNGAIN'LY, adj.** } uncouth.

An *ungainly* strut in their walk.

*Swift.*

**UNGALL'ED, adj.** Unhurt ; unwounded.

Let the stricken deer go weep,

The hart *ungalled* play ;

For some must watch, while some must sleep ;

So runs the world away. *Shakspeare. Hamlet.*

**UNGARTERED, adj.** Being without garters.  
You chid at Sir Protheus for going *ungartered*.

*Shakspeare.*

**UNGATHERED, adj.** Not cropped ; not  
picked.

We wondered why she kept her fruit so long :

For whom so late the *ungathered* apples hung.

*Dryden.*

**UNGENERATED, adj.** Unbegotten ; hav-  
ing no beginning.

Millions of souls must have been *ungenerated*, and  
have had no being.

*Raleigh.*

**UNGEN'ERATIVE, adj.** Begetting nothing.  
He is a motion *ungenerative*, that 's infallible.

*Shakspeare.*

**UNGEN'EROUS, adj.** Not noble ; not inge-  
nuous ; not liberal.

The victor never will impose on Cato

*Ungenerous* terms. His enemies confess

The virtues of humanity are Caesar's.

*Addison.*

To look into letters already opened or dropped is  
held an *ungenerous* act.

*Pope.*

**UNGENIAL, adj.** Not kind or favorable to  
nature.

The northern shires have a more cloudy *ungenial* air  
than any part of Ireland.

*Swift to Pope.*

Sullen seas that wash the *ungenial* pole.

*Thomson.*

**UNGENTLE, adj.** } Harsh ; rugged : the  
**UNGEN'TLY, adv.** } adverb and noun sub-

**UNGEN'TLENESS, n. s.** } stantive correspond.

Reward not thy sheepe, when ye take off his cote,  
With twitches and patches as broad as a groat :  
Let not such *ungentleness* happen to thine. *Tusser.*  
Why speaks my father so *ungently*. *Shakspeare.*

He is  
Vicious, *ungentle*, foolishly blunt, unkind. *Id.*  
Love, to thee I sacrifice  
All my *ungentle* thoughts. *Denham's Sophy.*

**UNGEN'TLEMANLY**, *adj.* Illiberal ; not becoming a gentleman.

The demeanor of those under Waller was much more *ungentlemanly* and barbarous. *Clarendon.*

This he contradicts in the almanack published for the present year, and in an *ungentlemanly* manner. *Swift.*

**UNGER** (John Frederick), secretary to the duke of Brunswick, was born in 1716, and died at Brunswick in 1781. He published a tract On the Nature of the Electric Fluid, which was crowned by the Academy of Sciences at Berlin in 1745 ; and a work On the Price of Corn, on its Sale, on its Variations, and on the influence which it has on the most important Affairs of Human Life, Göttingen, 1752. Unger invented in 1749 a self-acting machine for noting down any tune as it is played on the harpsichord ; and an artist of Berlin executed this piece of mechanism, of which a description was inserted in the Memoirs of the Academy of Berlin for 1771. The author himself published at Brunswick, in 1774, a Circumstantial Description of his Invention, and of the Manner in which he discovered it, 4to.

**UNGEOMETRICAL**, *adj.* Not agreeable to the laws of geometry.

All the attempts before Sir Isaac Newton, to explain the regular appearances of nature, were *ungeometrical*, and all of them inconsistent and unintelligible. *Cheyne.*

**UNGHVAR**, a palatinate in the north-east of Hungary, adjacent to Poland, and bounded on the west and south by the palatinate of Sempolin. It is watered by the rivers Ungh, Laborza, and Latorza, and in the north contains a portion of the Carpathian mountains, called Beszked. Its area is 1270 square miles ; its population about 80,000. The capital of the same name stands on the Ungh, and contains about 5000 inhabitants.

**UNGILD'ED**, *adj.* Not overlaid with gold.

You, who each day can theatres behold,  
Like Nero's palace, shining all with gold,  
Our mean *ungilded* stage will scorn. *Dryden.*

**UNGIRD'**, *v. a.* To loose any thing bound with a girdle.

The man *ungirded* his camels, and gave them straw and provender. *Genesis*, xxix. 32.

One tender foot was bare, the other shod ;  
Her robe *ungirt*. *Waller.*

**UNGIVING**, *adj.* Not bringing gifts.

In vain at shrines the *ungiving* suppliant stands ;  
This 'tis to make a vow with empty hands. *Dryden.*

**UNGLO'RIFIED**, *adj.* Not honored ; not exalted with praise and adoration.

Lest God should be any way *unglorified*, the greatest part of our daily service consisteth, according to the blessed apostle's own precise rule, in much variety of psalms and hymns. *Hooker.*

**UNGLOVED**, *adj.* Having the hand naked.  
When we were come near to his chair, he stood up, holding forth his hand *ungloved*, and in posture of blessing. *Bacon.*

**UNGLUE'**, *v. a.* To loose any thing cemented.  
Small rains relax and *unglue* the earth, to give vent to inflamed atoms. *Harvey on the Plague.*

She stretches, gapes, *unglues* her eyes,  
And asks if it be time to rise. *Swift.*

**UNGOD'**, *v. a.* To divest of divinity :  
**UNGOD'LY**, *adj.* } *ungodly* is wicked ; averse  
**UNGOD'LILY**, *adv.* } from God and his laws :  
**UNGOD'LINESS**, *n. s.* } the adverb and noun substantive corresponding.

Were we awakened by this tyranny,  
T' *ungod* this child again, it could not be  
I should love her, who loves not me. *Donne.*

His just, avenging ire  
Had driven out the *ungodly* from his sight,  
And the habitations of the just. *Milton.*

How grossly do many of us contradict the plain precepts of the gospel by our *ungodliness* and worldly lusts ! *Tillotson.*

Thus men *ungodded* may to places rise,  
And sects may be preferred without disguise. *Dryden.*

**UNGORED**, *adj.* Unwounded ; unhurt.  
I stand aloof, and will no reconciliation ;  
'Till, by some elder musters of known honour,  
I have a voice and precedent of peace,  
To keep my name *ungored*. *Shakspeare. Hamlet.*

**UNGORG'ED**, *adj.* Not filled ; not sated.  
The hell-hounds, as *ungorged* with flesh and blood,  
Pursue their prey. *Dryden.*

**UNGOT'**, *adj.* Not gained ; not acquired ; not begotten.

His loins yet full of *ungot* princes ; all  
His glory in the bud. *Waller.*

**UNGOVERN'ED**, *adj.* } Being without go-  
**UNGOVERNABLE**. } vernment ; unre-  
strained ; licentious : not to be ruled ; wild.

The estate is yet *ungoverned*. *Shakspeare.*  
Themselves they vilified

To serve *ungoverned* appetite. *Milton.*  
He was free from any rough, *ungovernable* passions,  
which hurry men on to say and do very offensive things. *Atterbury.*

**UNGRACE'FUL**, *adj.* } Wanting elegance or  
**UNGRACE'FULNESS**, *n. s.* } beauty : the noun sub-  
**UNGRA'CIOUS**, *adj.* } stantive corresponds :  
*ungracious* is, offensive ; displeasing ; hence hate-  
ful ; wicked ; odious.

He, catching hold of her *ungracious* tongue,  
Thereon an iron lock did fasten firm and strong. *Spenser.*

They did not except against the persons of any,  
though several were most *ungracious* to them. *Clarendon.*

Raphael answered heaven,  
Nor are thy lips *ungraceful*, sire of men. *Milton.*

To the gods alone  
Our future offspring, and our wives are known :  
The audacious strumpet and *ungracious* son. *Dryden.*

To attempt the putting another genius upon him, will be labour in vain ; and what is so plaistered on will have always hanging to it an *ungracefulness* of constraint. *Locke.*

**UNGRANTED**, *adj.* Not given ; not yielded ; not bestowed.

This only from your goodness let me gain,  
And this *ungranted*, all rewards are vain. *Dryden.*

**UNGRATE'FUL**, *adj.* } Making no returns,  
**UNGRATE'FULLY**, *adv.* } or making ill returns  
**UNGRATE'FULNESS**, *n. s.* } for kindness : the ad-  
verb and noun substantive corresponding.

Can I, without the detestable stain of *ungratefulness*,  
abstain from loving him, who, far exceeding the beautiful-  
ness of his shape with the beautifulness of his  
mind, is content so to abase himself as to become Da-  
metas's servant for my sake ? *Sidney.*

Most when driven by winds, the flaming storm  
Of the long flies destroys the beauteous form ;



Nor will the withered stock be green again ;  
 Bat the wild olive shoots, and shades the' *ungrateful*  
 plain. *Dryden.*

We often receive the benefit of our prayers when  
 yet we *ungratefully* charge heaven with denying our  
 petitions. *Wake.*

UNGRAVELY, *adv.* Without seriousness.

His present portance  
 Gibingly, and *ungravelly*, he did fashion. *Shakspeare.*  
 UNGROUND'ED, *adj.* Having no founda-  
 tion.

Ignorance, with an indifference for truth, is nearer  
 to it than opinion with *ungrounded* inclination, which  
 is the great source of error. *Locke.*

UNGRUDG'INGLY, *adv.* Without ill-will ;  
 willingly ; heartily ; cheerfully.

If, when all his art and time is spent,  
 He say 'twill ne'er be found, yet be content !  
 Receive from him the doom *ungrudgingly*,  
 Because he is the mouth of destiny. *Donne.*

UNGUARD'ED, *adj.* Undefended ; careless ;  
 negligent.

All the evils that proceed from an untied tongue, and  
 an *unguarded*, unlimited will, we put upon the accounts  
 of drunkenness. *Taylor.*

Proud, art thou met ? Thy hope was to have  
 reached

The throne of God *unguarded*, and his side  
 Abandoned. *Milton's Paradise Lost.*

It was intended only to divert a few young ladies,  
 of good sense and good humour enough to laugh not  
 only at their sex's little *unguarded* follies, but at their  
 own. *Pope.*

UNGUENT, *n. s.* Lat. *unguentum*. Oint-  
 ment.

Pre-occupation of mind ever requireth preface of  
 speech, like a fomentation to make the *unguent* enter.  
*Bacon.*

With *unguents* smooth the lucid marble shone. *Pope.*

UNGUESSED, *adj.* Not attained by conjecture.

He me sent, for cause to me *unguessed*. *Spenser.*

UNGUID'ED, *adj.* Not directed ; not regulated.

They resolve all into the accidental, *unguided* motions  
 of blind matter. *Locke.*

UNHABITABLE, *adj.* Fr. *inhabitable* ; Lat.  
*inhabitabilis*. Not capable to support inhabitants ;  
 uninhabitable.

Though the course of the sun be curbed between the  
 tropicks, yet are not those parts directly subject to his  
 perpendicular beams *unhabitable*, or extremely hot.

*Ray.*  
 UNHACK'ED, *adj.* Not cut ; not hewn ; not  
 scotched.

With a blessed and unvexed retire,  
 With *unhacked* swords, and helmets all unbruised,  
 We will bear home that lusty blood again. *Shak.*

UNHAL'LOW, *v. a.* } To deprive of holi-  
 UNHALLOWED, *adj.* } ness ; profane ; dese-  
 crate : unholy ; profane.

Perhaps the fact  
 Is not so heinous now, foretasted fruit,  
 Profaned first by the serpent, by him first,  
 Made common, and *unhallowed*, ere our taste. *Milton.*

Nor shall presume to violate these bands,  
 Or touch thy person with *unhallowed* hands. *Dryden.*  
 The vanity *unhallows* the virtue. *L'Estrange.*

UNHAND', *v. a.* } To loose from the hand :  
 UNHAND'LED, *adj.* } not handled ; not touched.  
 Still am I called. *Unhand* me, gentlemen. *Shak.*

A race of youthful and unhandled colts,  
 Fetching mad bounds. *Id. Merchant of Venice.*  
*Unhand* men, traitors. *Denham's Sophy.*

UNHAND'SOME, *adj.* } Ungraceful ; not  
 UNHAND'SOMELY, *adv.* } beautiful ; disingenu-  
 UNHAND'SOMENESS, *n. s.* } ous : the adverb and  
 noun substantive corresponding.

I was glad I had done so good a deed for a gentle-  
 woman not *unhandsome*, whom before I had in like  
 sort helped. *Sidney.*

The ruined churches are so *unhandsomely* patched  
 and thatched, that men do even shun the places for the  
 uncomeliness thereof. *Spenser.*

Be not troublesome to thyself, or to others, by *un-  
 handsomeness* or uncleanness. *Taylor.*

UNHANG'ED, *adj.* Not put to death by the  
 gallows.

There live not three good men *unhanged* in England.  
*Shakspeare.*

UNHAP', *n. s.* Misluck ; ill fortune.

She visited that place, where first she was so happy  
 as to see the cause of her *unhap*. *Sidney.*

UNHAP'PIED. This word seems a participle  
 from unhappy, which yet is never used as a verb.  
 Made *unhappy*.

You have mislaid a prince,  
 A happy gentleman in blood and lineament,  
 By you *unhappied*, and disfigured clean. *Shakspeare.*

UNHAP'INESS, *n. s.* } Misery ; infelicity ;  
 UNHAP'ILY, *adv.* } misfortune ; mischie-  
 UNHAP'Y, *adj.* } vious trick : the deriva-  
 tives correspond.

You hold a fair assembly ; you do well, lord,  
 You are a churchman, or I'll tell you, cardinal,  
 I should judge now most *unhappily*. *Shakspeare.*  
 She hath often dreamed of *unhappiness*, and waked  
 herself with laughing. *Id.*

I unweeting have offended,  
*Unhappily* deceived. *Milton's Paradise Lost.*  
 Desire of wandering this *unhappy* morn. *Milton.*

The real foundation of our *unhappiness* would be laid  
 in our reason, and we should be more miserable than  
 the beasts, by how much we have a quicker apprehen-  
 sion. *Tillotson.*

UNHARBOURED, *adj.* Affording no shelter.  
 'Tis chastity :

She that has that is clad in compleat steel ;  
 And, like a quivered nymph, with arrows keen,  
 May trace huge forests, and *unharboured* heaths,  
 Infamous hills, and sandy perilous wilds. *Milton.*

UNHAR'DENED, *adj.* } Not confirmed or  
 UNHAR'DY. } made hard ; feeble ;  
 tender ; timorous.

Messengers

Of strong prevailment in *unhardened* youth. *Shakspeare.*  
 The wisest, unexperienced, will be ever  
 Timorous and loth, with novice modesty ;  
 Irresolute, *unhardy*, unadventurous. *Milton.*

UNHARM'ED, *adj.* } Unhurt ; not injured :  
 UNHARM'FUL. } innoxious ; innocent.  
 Themselves *unharmful*, let them live *unharm'd*

Their jaws disabled, and their claws disarmed. *Dryden.*  
 Though great light be insufferable to our eyes, yet the  
 highest degree of darkness does not disease them ; for,  
 causing no disorderly motion, it leaves that curious or-  
 gan *unharm'd*. *Locke.*

UNHARM'NIOUS, *adj.* Not symmetrical ;  
 disproportionate.

Those pure, immortal elements, that know  
 No gross, no *unharmionious* mixture foul,  
 Eject him, tainted now, and purge him off. *Milton.*

His thoughts are improper to his subject, his expres-  
 sions unworthy of his thoughts, or the turn of both is  
*unharmionious*. *Dryden.*

UNHARN'ESS, *v. a.* To loose from traces.  
 The sweating steers *unharnessed* from the yoke,  
 Bring back the crooked plough. *Dryden.*

**UNHATCH'ED**, *adj.* Not disclosed from the eggs; not brought to light.

Some *unhatched* practice  
Hath puddled his clear spirit. *Shakspeare.*

**UNHAZ'ARDED**, *adj.* Not adventured; not put in danger.

Here I should still enjoy thee day and night,  
Whole to myself, *unhazarded* abroad,  
Fearless at home. *Milton's Agonistes.*

**UNHEALTHFUL**, *adj.* } Sickly; wanting  
**UNHEALTHY**. } health.

The diseases which make years *unhealthful*, are spotted fevers, and the *unhealthful* season is the autumn. *Graunt.*

No body would have a child crammed at breakfast, who would not have him dull and *unhealthy*. *Locke.*

**UNHEARD'**, *adj.* Not perceived by the ear; unknown; taking of as a preposition.

For the noise of drums and timbrels loud,  
Their children's cries *unheard*. *Milton.*

What pangs I feel, unpitied and *unheard*! *Dryden.*  
Free from hopes or fears, in humble ease,  
*Unheard* of may I live, and die in peace! *Granville.*

**UNHEART'**, *v. a.* To discourage; depress.  
To bite his lip,

And hum at good Cominius, much *unhearts* me. *Shakspeare.*

**UNHEATED**, *adj.* Not made hot.  
Neither salts, nor the distilled spirits of them, can penetrate the narrow pores of *unheated* glass. *Boyle.*

**UNHEED'ED**, *adj.* } Disregarded; not thought  
**UNHEED'FUL**, } worthy of notice; escaping  
**UNHEED'ING**, } notice: *unheedful* is not  
**UNHEED'Y**. } cautious; negligent; precipitate: the meaning also of the other adjectives.

Nor hath love's mind of any judgment taste;  
Wings, and no eyes, figure *unheedy* haste. *Shakspeare.*  
He of his fatal guile gave proof *unheeded*. *Milton.*  
I have not often seen him; if I did,

He passed unmarked by my *unheeding* eyes. *Dryden.*  
The triumph ceased—tears gushed from every eye,  
The world's great victor passed *unheeded* by. *Pope.*

**UNHELP'ED**, *adj.* } Unassisted; having no  
**UNHELP'FUL**. } auxiliary; unsupported:  
affording no support.

I bewail good Glo'ster's case  
With sad, *unhelpful* tears. *Shakspeare.* *Henry VII.*  
*Unhelped* I am, who pitied the distressed,  
And, none oppressing, am by all oppressed. *Dryden.*

**UNHEWN'**, *part. adj.* Not hewn.  
In occasions of merriment, this rough-cast, *unhewn*  
poetry, was instead of stage-plays. *Dryden.*

**UNHINGE'**, *v. a.* To throw from the hinges;  
displace by violence.

Rather than not accomplish my revenge,  
Just or unjust, I would the world *unhinge*. *Waller.*

For want of cement, ribs of rock, disjoined  
Without an earthquake, from their base would start,  
And hills *unhinged* from their deep roots depart. *Blackmore.*

**UNHOLY**, *adj.* } Profane; not hallowed:  
**UNHOLINESS**, *n. s.* } the noun substantive corresponding.

Doth it follow that all things now in the church are *unholy* which the Lord hath not himself precisely instituted? *Hooker.*

Too foul and manifest was the *unholiness* of obtruding upon men remission of sins for money. *Raleigh.*

**UNHON'ORED**, *adj.* Not regarded with veneration; not celebrated.

Pales *unhonoured*, Ceres unemployed,  
Were all forgot. *Dryden.*

Grieved that a visitant so long should wait  
Unmarked, *unhonoured*, at a monarch's gate. *Pope.*

**UNHOOP'**, *v. a.* To divest of hoops.  
*Unhoop* the fair sex, and cure this fashionable tympany got among them. *Addison.*

**UNHOPED'**, *adj.* } Not expected; greater than  
**UNHOPED' FOR**, } hope had promised: such as  
**UNHOPE'FUL**. } leaves no room for hope.

Benedict is not the *unhopefullest* husband that I know: thus far I can praise him; he is of approved valor. *Shakspeare.*

I thought the rousing style I wrote in might prove no *unhopeful* way to procure somewhat considerable from those great masters of chymical arcana. *Boyle.*

Heaven has inspired me with a sudden thought,  
Whence your *unhoped* for safety may be wrought. *Dryden.*

**UNHORSE'**, *v. a.* To beat from a horse; throw from the saddle.

The emperor rescued a noble gentleman, whom, *unhorsed* and sore wounded, the enemy was ready to have slain. *Knolles.*

On a fourth he flies, and him *unhorsed* too. *Daniel.*

**UNHOSPITABLE**, *adj.* Lat. *inhospitalis*. Affording no kindness or entertainment to strangers; cruel; barbarous.

The cruel nation, covetous of prey,  
Stained with my blood the' *unhospitable* coast. *Dryden.*

**UNHOSTILE**, *adj.* Not belonging to an enemy.  
The high-prancing steeds

Spurn their dismounted riders; they expire  
Indignant, by *unhostile* wounds destroyed. *Philips.*

**UNHOUSE'**, *v. a.* To drive from habitation.  
Call the creatures,

Whose naked natures live in all the spight  
Of wreakful heaven; whose bare, *unhoused* trunks,  
To the conflicting elements exposed,  
Answer mere nature. *Shakspeare.* *Timon.*

Death unawares, with his cold, kind embrace,  
*Unhoused* the virgin soul from her fair biding place. *Milton.*

**UNHOU'SELLED**, *adj.* Having not the sacrament.

Thus was I sleeping, by a brother's hand,  
Of life, of crown, of queen, at once dispatched;  
Cut off even in the blossoms of my sin,  
*Unhouselled*, unanointed, unanelled. *Shakspeare.*

**UNHUM'LED**, *adj.* Not humbled; not touched with shame or confusion.

Should I of these the liberty regard,  
Who freed, as to their ancient patrimony,  
*Unhumbled*, unrepented, unreformed,  
Headlong would follow? *Milton.*

**UNHURT'**, *adj.* } Free from harm: in-  
**UNHURT'FUL**, } noxious; harmless: the  
**UNHURT'FULLY**, *adv.* } adverb corresponding.

You hope the duke will return no more, or you imagine me too *unhurtful* an opposite. *Shakspeare.*

Of fifteen hundred, eight hundred were slain in the field; and, of the remaining seven hundred, two men only came off *unhurt*. *Bacon's War with Spain.*

Flames *unhurtful*, hovering, dance in air. *Blackmore.*  
We laugh at others as innocently and as *unhurtfully* as at ourselves. *Pope to Swift.*

**UNICORN**, *n. s.* Lat. *unicornis, unus and cornu*. A beast, or bird, real or fabulous, that has only one horn.

Wert thou the *unicorn*, pride and wrath would confound thee. *Shakspeare.* *Timon.*

Some *unicorns* we will allow even among insects, as those nasiconous beetles described by Muffetus. *Brown.*

Of the *unicorn* bird, the principal marks are these; headed and footed like the dunghill cock, tailed like a



goose, horned on his forehead, with some likeness to the unicorn is pictured; spurred on his wings, bigger than a swan. *Grew.*

The UNICORN is thought to be the same with the rhinoceros. See RHINOCEROS. Sparmann informs us that the figure of the unicorn described by the ancients has been found delineated by the Snese Hottentots on the plain surface of a rock in Caffraria; and therefore conjectures that such an animal either does exist at present in the internal parts of Africa, or at least once did so. Father Lobo affirms that he has seen it.

UNICORN FISH. See MONODON.

UNIFORM, *adj.* } Lat. *unus* and *forma*.

UNIFORMITY, *n. s.* } Keeping its tenor; similar

UNIFORMLY, *adv.* } to itself; conformable to one rule: the noun substantive and adverb correspond.

The only doubt is about the manner of their unity, how far churches are bound to be *uniform* in their ceremonies, and what way they ought to take for that purpose. *Hooker.*

Queen Elizabeth was remarkable for that steadiness and *uniformity* which ran through all her actions.

*Addison.*

The capillamenta of the nerves are each of them solid and uniform; and the vibrating motion of the æthereal medium may be propagated along them from one end to the other *uniformly*, and without interruption.

*Newton's Opticks.*

UNIFORMITY, regularity, a similitude or resemblance between the parts of a whole. Such is that we meet with in figures of many sides, and angles respectively equal, and answerable to each other. A late ingenious author makes beauty to consist in uniformity, joined or combined with variety. Where the uniformity is equal, in two objects, the beauty, he contends, is as the variety; and, where the variety is equal, the beauty is as the uniformity.

UNIFORMITY is particularly used for one and the same form of public prayers, and administration of sacraments and other rites, &c., of the church of England, prescribed by the famous stat. 1, Eliz. and 13 and 14, Car. II. cap. 4, called the Act of Uniformity. See LITURGY.

UNIGENITUS. See JANSENISTS.

UNIMAGINABLE, *adj.* } Not to be imagined

UNIMAGINABLY, *adv.* } by the fancy; not to be conceived: the adverb corresponds.

Things to their thought

So unimaginable, as hate in heaven. *Milton.*

Little commissures, where they adhere, may not be porous enough to be pervious to the unimaginably subtle corpuscles that make up the beams of light. *Boyle.*

UNIMITABLE, *adj.* Fr. *inimitable*; Lat. *inimitabilis*. Not to be imitated.

Both these are unimitable. *Burnet.*

UNIMORTAL, *adj.* Not immortal; mortal.

They betook them several ways,  
Both to destroy, or unimmortal make  
All kinds. *Milton.*

UNIMPAIRABLE, *adj.* } Not liable to waste

UNIMPAIRED. } or diminution: not wasted.

If the superior be unimpaired, it is a strong presumption that the inferiors are likewise unimpaired.

*Hakewill.*

If our silver and gold diminishes, our public credit continues unimpaired. *Addison.*

UNIMploRED, *adj.* Not solicited.

If answerable stile I can obtain  
Of my celestial patroness, who deigns  
Her nightly visitation unimplored. *Milton.*

UNIMPORTANT, *adj.* Not momentous; not pompous or assuming.

A free, unimportant, natural, easy manner; diverting others just as we diverted ourselves. *Pope to Swift.*

UNIMPORTUNED, *adj.* Not solicited; not teased to compliance.

Who ever ran

To danger unimportuned, he was then  
No better than a sanguine, virtuous man. *Donne.*

UNIMPROVED, *adj.* } Not made better

UNIMPROV'ABLENESS, *n. s.* } or more knowing: state of being unimproved.

Young Fortinbras,

Of unimproved mettle hot and full. *Shakespeare.*

This must be imputed to their ignorance and unimprovableness in knowledge, being generally without literature. *Hammond.*

Shallow, unimproved intellects are confident pretenders to certainty. *Glauville.*

UNINCREASABLE, *adj.* Admitting no increase.

That love, which ought to be appropriated to God, results chiefly from an altogether, or almost unincreasable elevation and vastness of affection. *Boyle.*

UNINDIFFERENT, *adj.* Partial; leaning to a side.

His opinion touching the catholick church was as unindifferent, as, touching our church, the opinion of them that favour this pretended reformation is.

*Hooker.*

UNINDUSTRIOUS, *adj.* Not diligent; not laborious.

Pride we cannot think so sluttish or unindustrious an agent, as not to find out expedients for its purpose.

*Decay of Piety.*

UNINFLAMED, *adj.* Not set on fire.

When weak bodies come to be inflamed, they gather a much greater heat than others have uninflamed.

*Bacon.*

The uninflamable spirit of such concretes may be pretended to be but a mixture of phlegm and salt.

*Boyle.*

UNINFORMED, *adj.* Untaught; un instructed.

No uninformd minds can represent virtue so noble to us, that we necessarily add splendour to her. *Pope.*

UNINGEN'UOUS, *adj.* Illiberal; disingenuous.

Did men know how to distinguish between reports and certainties, this stratagem would be as unskillful as it is uningenuous. *Decay of Piety.*

UNINHABITABLE, *adj.* } Unfit to be in-

UNINHABITABLENESS, *n. s.* } habited: state of

UNINHABITED, *adj.* } being so: not in-

habited.

The whole island is now uninhabited. *Sandys.*

Divers radicated opinions, such as that of the uninhabitableness of the torrid zone, of the solidity of the celestial part of the world, are generally grown out of request. *Boyle.*

UNINJURED, *adj.* Unhurt; suffering no harm.

Then in full age, and hoary holiness,  
Retire, great teacher! to thy promised bliss.  
Untouched thy tomb, uninjured be thy dust,

As thy own fame against the future just! *Prior.*

UNINSCRIBED, *adj.* Having no inscription.

Make sacred Charles's tomb for ever known;  
Obscure the place, and un inscribed the stone,  
Oh fact accurst! *Pope.*

UNINSPIRED, *adj.* Not having received supernatural instruction or illumination.

Thus all the truths that men, uninspired, are enlightened with, came into their minds. *Locke.*

**UNINSTRUCTED**, *adj.* } Not taught; not  
**UNINSTRUCTIVE**. } helped by instruc-  
 tion: not conferring instruction.

That fool intrudes, raw in this great affair,  
 And *uninstructed* how to stem the tide. *Dryden.*

Were not men of abilities thus communicative, their  
 wisdom would be in a great measure useless, and their  
 experience *uninstructive*. *Addison.*

**UNINTELLIGENT**, *adj.* Not knowing; not  
 skilful; not having any consciousness.

We will give you sleepy drinks, that your senses may  
 be *unintelligent* of your insufficiency. *Shakspeare.*

The obvious products of *unintelligent* nature.

**UNINTELLIGIBLE**, *adj.* } Not such as can  
**UNINTELLIGIBLY**, *adv.* } be understood: in  
**UNINTELLIGIBILITY**, *n. s.* } a manner not to be  
 understood: quality of not being understood.

Credit the *unintelligibility* of this union and motion.

Sound is not *unintelligibly* explained by a vibrating  
 motion communicated to the medium. *Locke.*

**UNINTENTIONAL**, *adj.* Not designed; hap-  
 pening without design.

Besides the *unintentional* deficiencies of my style, I  
 have purposely transgressed the laws of oratory, in  
 making my periods over-long. *Boyle.*

**UNINTERESTED**, *adj.* } Not having in-  
**UNINTERESTED**. } terest.

The greatest part of an audience is always *uninter-  
 ested*, though seldom knowing. *Dryden.*

**UNINTERMITTED**, *adj.* Continued; not  
 interrupted.

This motion of the heavenly bodies seems to be  
 partly continued and *uninterrupted*, as that motion of  
 the first moveable partly interpolated and interrupted.

*Hale's Origin of Mankind.*

**UNINTERMIXED**, *adj.* Not mingled.

*Unintermixed* with fictitious fantasies,

I verify the truth, not poetize. *Daniel.*

**UNINTERRUPTED**, *adj.* } Not broken; not

**UNINTERRUPTEDLY**, *adv.* } interrupted.

Thy constant quiet fills my peaceful breast

With unmixed joy, *uninterrupted* rest. *Roscommon.*

A successive augmentation *uninterruptedly* conti-  
 nued, in an actual existence of believing, and congre-  
 gations in all ages unto the end of the world. *Pearson.*

**UNINTRENCHED**, *adj.* Not intrenched.

It had been cowardice in the Trojans, not to have  
 attempted any thing against an army that lay unfor-  
 tified and *unintrenched*. *Pope.*

**UNINVESTIGABLE**, *adj.* Not to be searched  
 out.

The number of the works of this visible world, being  
*uninvestigable* by us, afford us a demonstrative proof of  
 the unlimited extent of the Creator's skill. *Ray.*

**UNINVITED**, *adj.* Not asked.

His honest friends, at thirty hour of dusk,

Come *uninvited*. *Philips.*

**UNJOINTED**, *adj.* Disjoined; separated.

I hear the sound of words; their sense the air

Dissolves *unjointed* ere it reach my ear. *Milton.*

They are all three immovable or *unjointed*, of the

thickness of a little pin. *Grew's Musaeum.*

**UNION**, *n. s.* Lat. *unio*. The act of joining  
 two or more, so as to make them one; concord; a  
 pearl: see the extract from Shakspeare.

The king shall drink to Hamlet's better breath;

And in the cup an *union* shall be throw

Richer than that which four successive kings

In Denmark's crown have worn. *Shakspeare.*

One kingdom, joy, and *union* without end. *Milton.*

**UNIPAROUS**, *adj.* Lat. *unus* and *pario*. Bring-  
 ing one at a birth.

Others make good the paucity of their breed with  
 the duration of their days, whereof there want not ex-  
 amples in animals *uniparous*. *Browne.*

**UNISON**, *adj.* & *n. s.* Lat. *unus* and *sonus*.  
 Sounding alone: a sound the same with another;  
 a string of such a sound: a single unvaried note.

Sounds intermixed with voice

Choral, or *unison*. *Milton's Paradise Lost.*

When moved matter meets with any thing like that  
 from which it received its primary impress, it will in  
 like manner move it, as in musical strings tuned  
*unisons*. *Glanville.*

Diversified 'midst *unison* of chime,  
 Freer than air, yet manacled with rhyme. *Harte.*

**UNIT**, *n. s.* Lat. *unus, unius*. One; the least  
 number, or root of numbers.

If any atom should be moved mechanically, without  
 attraction, 'tis above a hundred million millions odds  
 to an *unit*, that it would not strike upon any other  
 atom, but glide through an empty interval without con-  
 tact. *Bentley.*

*Units* are the integral parts of any large number.

*Watts.*

**UNITARIANS**, in ecclesiastical history, a name  
 sometimes given to those who confine the glory  
 and attribute of divinity to the Father of our Lord  
 Jesus Christ. See **ANTITRINITARIANS**, a denomi-  
 nation of this sect which we consider far more just.

**UNITAS FRATRUM**, or United Brethren, in ec-  
 clestical history. The church of the United  
 Brethren took its rise in Moravia during the four-  
 teenth century; but is said by the brethren to have  
 derived its origin from the Greek church in the  
 ninth century, when, by the instrumentality of  
 Methodius and Cyrillus, two Greek monks, the  
 kings of Bulgaria and Moravia being converted to  
 the faith, were, together with their subjects, united  
 in communion with the Greek church. Methodius  
 was the first bishop; and for their use Cyrillus  
 translated the Scriptures into the Sclavonian lan-  
 guage. Though they consider episcopal ordination  
 as necessary to qualify the servants of the church  
 for their respective functions, they allow to their  
 bishops no elevation of rank or pre-eminent autho-  
 rity; their church having from its first establish-  
 ment been governed by synods, consisting of  
 deputies from all the congregations; and by other  
 subordinate bodies, which they call conferences.

In questions of importance, or of which the con-  
 sequences cannot be foreseen, recourse is had to  
 the lot, which is never made use of but after mature  
 deliberation and fervent prayer. In their opinion,  
 episcopal consecration does not confer any power  
 to preside over one or more congregations; and a  
 bishop can discharge no office but by the appoint-  
 ment of a synod, or of the elders conference of  
 the unity. Presbyters among them can perform  
 every function of the bishop, except ordination;  
 for he confirms, by the laying on of hands on  
 young persons when they first become candidates  
 for the communion. Deacons are assistants to the  
 presbyters much in the same way as in the church  
 of England; and in the brethren's churches dea-  
 cones are retained, for the purpose of privately  
 admonishing their own sex, and visiting them in  
 their sickness; but, though they are solemnly  
 blessed to this office, they are not permitted to  
 teach in public, and far less to administer the sa-  
 crament. They have also seniores civiles, or lay-  
 elders, in contradistinction to spiritual elders or  
 bishops, who are appointed to watch over the con-  
 stitution and discipline of the unity of the brethren;



over the observance of the laws of the country in which congregations or missions are established; and over the privileges granted to the brethren by the governments under which they live. They do not consider a regular course of literary education as at all necessary to qualify persons for admission into orders, provided they possess a thorough knowledge of the word of God, which they call solid Christian experience, and a well regulated zeal to serve God and their neighbours. On Sunday, besides the public prayers, which are either read from a liturgy or pronounced extempore by the minister, one or two sermons are preached in every church or chapel; and after the morning service an exhortation is given to the children. Previous to the holy communion, which is administered on some Sunday once a-month, and likewise on Maunday Thursday, each person who intends to communicate converses with one of the elders on the state of his soul, expressing his desire to partake of the sacrament. The celebration of the communion is generally preceded by a love feast, which is also kept on other solemn occasions. On Maunday Thursday, before communion, the brethren have a solemn foot-washing; and at this, and we suppose at other times, they greet one another with the kiss of charity. These ceremonies they consider as religious rites, and authorised through all ages of the church by our Saviour himself and his two apostles St. Peter and St. Paul. (John xii. 14; 1 Peter v. 14; Romans xvi. 16.) Our limits will not permit us to give a systematic view of the doctrinal tenets of the brethren. Though they acknowledge no other standard of truth than the sacred Scriptures, they adhere to the Augsburg confession, and speak respectfully of the thirty-nine articles of the church of England. They believe that the kingdom of Christ is not confined to any particular party; community, or church; and they consider themselves, though united in one body or visible church, as spiritually joined in the bond of Christian love to all who are taught of God, and belong to the universal church of Christ, however much they may differ in forms, which they deem non-essentials. A full account of this society of Christians will be found in Crantz's Ancient and Modern History of the Protestant Church of the United Brethren, printed in London in 1780; and in a work entitled An Exposition of Christian Doctrine as taught in the Protestant Church of the United Brethren, London, 1784.

No sect has exhibited greater wisdom and perseverance in their attempts to convert and civilise the heathen. Their numbers did not exceed 600 when they first began their attempt to convert the heathen; and, in the period of eight or nine years, they sent missionaries to Greenland, to St. Thomas's, to St. Croix, to Surinam, to the Rio de Berbice, to the Indians of North America, to the negroes of South Carolina, to Lapland, to Tartary, to Algiers, to Guinea, to the Cape of Good Hope, and to the island of Ceylon. We cannot follow Dr. Brown through his details of these missions, which he has derived from the well-known works of Crantz, and the periodical accounts. In Greenland, where they had lately three settlements, viz. at New Hernhuth, Lichtenfels, and Lichtenau, the number of Christians, in the year 1810, was 998; but it appears to be diminishing, not so much from their defection to paganism, as from a general decrease in the population of this inhospitable region.

In St. Thomas's, where their number in 1812, was 2285, and St. Croix, where they have three congregations, consisting in 1812 of 8443 persons, they have been favored by the ruling powers, and have been very successful; in Jamaica, their undertaking has been viewed with jealousy, and they have made little progress; while in Antigua they have established the most flourishing of all their missions, and reckon 11,824 members of their different congregations. Their efforts on the continent of America, both North and South, have been almost uniformly unprosperous; at Berbice the settlement was broken up in 1763 by a rebellion of the negroes; at Hope, on the river Corentyn, in Surinam, after several partial calamities, they were dispersed in 1808, in consequence of the burning of their settlement; and at Bambeey and Paramaribo their establishments appear to be on the point of dissolution. The missions to North America have been almost without exception disastrous. However, they have five settlements among the Indians. Their late missions, excepting the one that went to the Cape, appear to have been undertaken without much prudence, and attended with little success. In the year 1812, according to an estimate by Mr. Latrobe, they had thirty-three settlements among the heathen, under whose care were 27,000 converts.

|                                 |  |
|---------------------------------|--|
| UNITE, <i>v. a. &amp; v. n.</i> | } Lat. <i>unitus</i> . To join two or more into one; make to agree or adhere: as a verb neuter to join in action; concur; coalesce: unitedly is with union: uniter, he who unites: union the act or power of uniting: unitive, having that power: unity, the state of being one; concord; agreement; principle of union. |
| UNITEDLY, <i>adv.</i>           |  |
| UNITER, <i>n. s.</i>            |  |
| UNITION, <i>n.</i>              |  |
| UNITIVE, <i>adj.</i>            |  |
| UNITY, <i>n. s.</i>             |  |

The force which wont in two to be dispersed, In one alone right hand he now unites. *Spenser.*

To the avoiding of dissension, it availeth much, that there be amongst them an *unity*, as well in ceremonies as in doctrine. *Hooher.*

In the lawful name of marrying, To give our hearts *united* ceremony. *Shakespeare.*  
Take *unity* then out of the world, and it dissolves into a chaos. *Holyday.*

The king proposed nothing more than to unite his kingdom in one form of worship. *Clarendon.*

*Unity* of possession is a joint possession of two rights by several titles. For example, I take a lease of land from one upon a certain rent; afterwards I buy the fee-simple. This is an *unity* of possession. *Cowell.*

Suppose an *uniter* of a middle constitution, that should partake of some of the qualities of both. *Glanville.*

Charity is of a fastening and *uniting* nature. *Pearson.*

The *unities* of time, place, and action, are exactly observed. *Dryden's Preface to All for Love.*

That can be nothing else but the *unitive* way of religion, which consists of the contemplation and love of God. *Norris.*

As long as any different substance keeps off the *union*, hope not to cure a wound. *Wiseman's Surgery.*

UNITED PROVINCES, or United Netherlands, called also, during the changes produced by the French Revolution, the Batavian Republic, consisted of the seven provinces of Holland, Zealand, Friesland, Groningen, Overijssel, Zutphen, and Utrecht. They composed the greatest part of the ancient Batavia, whose inhabitants were formerly



so much renowned for their valor. Under the Romans they were exempt from imposts and taxes, in consequence of bearing the honorable title of allies of the republic. For their modern state, see NETHERLANDS.

UNITED STATES OF NORTH AMERICA. See AMERICA, NORTH.

UNITY, in poetry. Aristotle laid it down as a rule, that there are three unities to be observed, viz. the unity of action, of time, and of place.

UNJUDG'ED, *adj.* Not judicially determined.

Causes *unjudged* disgrace the loaded file,  
And sleeping laws the king's neglect reville. *Prior.*

UNIVERSAL, *adj.* & *n. s.* *Lat. universalis.*

UNIVERSALITY, *n. s.*

UNIVERSALLY, *adv.*

U'NIVERSE, *n. s.*

*General; extending to all; total; not particular: the*

noun substantive and adverb correspond: the universe is the general system of things; all nature.

Those offences which are breaches of supernatural laws, violate in general that principle of reason, which willett *universality* to fly from evil. *Hooker.*

All sorrowed: if all the world could have seen 't, the woe had been *universal*. *Shakspeare.*

Creeping murmur, and the poring dark,  
Fills the wide vessel of the *univers*. *Id.*

To what end had the angel been set to keep the entrance into paradise after Adam's expulsion, if the *universal* had been paradise? *Raleigh.*

From things particular

She doth abstract the *universal* kinds. *Davies.*

This catholicism, or second affection of the church, consisteth generally in *universality*, as embracing all sorts of persons, as to be disseminated through all nations, as comprehending all ages, as containing all necessary and saving truths, as obliging all conditions of men to all kind of obedience, as curing all diseases, and planting all graces in the souls of men. *Pearson.*

UNIVERSITY, *n. s.* *Lat. universitas.* A school, where all the arts and faculties are taught.

While I play the good husband at home, my son and servants spend all at the *university*.

*Shakspeare. Taming of the Shrew.*

The *universities*, especially Aberdeen, flourished under many excellent scholars, and very learned men.

*Clarendon.*

UNIVERSITY is the name of a corporation formed for the education of youth in the liberal arts and sciences, and authorised to admit such as have studied in it to certain degrees in different faculties, which not only serve as certificates of proficiency in science, but also confer on those who obtain them considerable privileges within the university, as well as some rank in the state without it. Universities generally comprehend within them one or more colleges; but this is not always the case; for the university of St. Andrew's was in being before either of its colleges was founded, and it would continue in being with all its privileges though both its colleges were levelled with the dust. In every university with which we are acquainted, there are four faculties, viz. theology, law, physic, and the arts and sciences, comprehending mathematics, natural and moral philosophy, &c.; and in Oxford, Cambridge, and some other universities, music is considered as a fifth faculty. Universities, in their present form, and with their present privileges, are institutions comparatively modern. They sprang from the convents of regular clergy, or from the chapters of cathedrals in the church of Rome, where young men were educated for holy orders, in that dark period when the clergy

possessed all the little erudition which was left in Europe. These convents were seminaries of learning probably from their first institution; and we know with certainty, that in Old Aberdeen there was a monastery in which youth were instructed in theology, the canon law, and the school philosophy, at least 200 years before the university and King's College were founded. These universities have long been considered as lay corporations; but, as a proof that they had the ecclesiastical origin which we have assigned to them, it will be sufficient to observe, that the pope arrogated to himself the right of vesting them with all their privileges; and that, prior to the reformation, every university in Europe conferred its degrees in all the faculties by authority derived from a papal bull. The most ancient universities in Europe are those of Oxford, Cambridge, Paris, Salamanca, and Bologna; and, in the two English universities, the first founded colleges are those of University, Baliol, and Merton, in the former, and St. Peter's in the latter. Oxford and Cambridge, however, were universities; or, as they were then called, studies, some hundreds of years before colleges or schools were built in them; for the former flourished as a seminary of learning in the reign of Alfred the Great, and the other, could we believe its partial partizans, at a period still earlier. The universities of Scotland are four, St. Andrew's, Glasgow, Aberdeen, and Edinburgh. In Ireland there is but one university, viz. that of Dublin, founded by queen Elizabeth, and very richly endowed.

UNIVERSITY OF LONDON. This, at the period at which we close our work, may be called still an infant institution; but it has urged some strong claims to public regard, and proceeded with great credit through its earlier sessions. Our plates contain a view of the buildings.

We cannot better state its origin, and our own sentiments respecting it, than in the words of the Edinburgh Reviewer:—

"We regard the event of a new university being founded, but more especially in the capital of the British empire, as, in every point of view, among the most important to which these times, so fruitful in improvement, have given birth. Its influence upon the advancement of knowledge and the progress of the species would be very great, were it even to be established upon the same principles which have been adopted in the old collegiate institutions of England. It would at least be a vast addition to the means of literary and scientific education possessed by that country, and it would in some degree enable her to keep pace with the rapid progress of her population, in her public provisions for their instruction. The fact that Oxford and Cambridge teach no more than from 3000 to 4000 young men, out of at least 200 times that number of an age fit for instruction, is of itself quite sufficient to demonstrate the deplorable want of the higher branches of education among our southern neighbours. The population of Scotland is not above a sixth part of that of England, and yet there are more students attending our universities.

"We have the most entire persuasion that the plan of sending young men of eighteen or nineteen to live together for the three most critical years of their lives, at a distance from their parents or guardians, subject to no effectual or useful control, and suffered to drink, dice, and wench, as they please, to read what they please, and asso-



ciate with whom they please, provided only they are punctual in attendance at chapel for five minutes in a morning, and regular in wearing the proper vestments, and showing themselves at the hour of grace before meat—is one of the most extravagant follies that ever entered into the minds of men, and would have been deemed too absurd a caricature of human improvidence had it been only known in some page of Gulliver's Travels, and not grown silently into an English habit. The Scotch plan of uniting domestic habits and parental superintendence with college study seems to us incalculably better adapted to form both learned and good men, and is amply sufficient to account for the superiority of our youth in sober, prudent, and virtuous habits, as well as proficiency in their studies.

Adverting to the practical measures adopted, this writer continues—

'The first step taken, and most wisely taken, by the promoters of this measure was to form a union of all the different interests which were concerned in its success; and accordingly those liberal churchmen who desired to see a university founded on general grounds readily joined with the various denominations of Dissenters, who, being excluded from the benefits of the ancient establishments, have no means of educating their youth except through a new foundation. As it was resolved to embrace all the branches of learning in the projected scheme, a great difficulty immediately arose as to theology and the kindred studies of ecclesiastical history and biblical criticism. If, on the one hand, these were excluded, the course of study seemed to be imperfect, and in a very important branch; beside the certainty of cavil arising among the adversaries of improvement, who would not fail to urge the omission as an intentional slight put upon sacred literature,—perhaps to raise an outcry as if all religion was purposely excluded through indifference or disrespect. If, on the other hand, they were admitted, how could various opinions be so far consulted as to find teachers whose doctrines every sect might receive? How could a Catholic and Protestant, or a Churchman and Dissenter, attend the same course of theological lectures, or listen to the same historical account of the councils, the pope, the reformation, the Puritans, and the restoration? The reluctance to omit all theological literature was, however, so great that a compromise was at first propounded and nearly resolved upon. Three classes were to be taught—theology by a member of the church of England, ecclesiastical history by a member of the church of Scotland, and biblical criticism by a member of one of the Dissenting denominations. We mention this as a signal proof of the extraordinary indisposition to omit these important classes: for a very little consideration was sufficient, of course, to show the impracticability of any such arrangement, and to prove that theology cannot possibly be taught except in one of two sorts of universities—either where all the students are of one religious persuasion, or where religious belief is a matter of perfect indifference to all. Now as the new scheme was intended to comprehend every denomination of believers, and as a deep sense of the importance of religion, was the prevailing sentiment of its promoters, in so much indeed that the exclusion of Dissenters from the old establishments, which was one moving cause of the new institution, had only

been effected by their own conscientious regard for their religious principles, it was quite plain that no system of theological instruction could be adopted at all. The whole other sciences, however, might be taught; and it was clearly not because of the little value set upon the one excepted, but precisely because of its paramount importance over all human learning, which precluded alike both compromise and indifference, that this one was of necessity excluded.

'Can it be pretended that the subscription of the Articles communicates a knowledge of their dogmas? That subscription, on the contrary, supposes or ought to suppose such a knowledge to have been previously acquired. Will it be said that the attendance at chapel for a few minutes daily effects the extrusion of the old man—the hearer half asleep, just risen from the bed he is just going to re-occupy, and the reader in such haste that he has been known repeatedly to boast of being able to give any man distance as far as the Creed and beat him? (The bet was, "I'll give any of you to Pontius Pilate, and the odds, and beat him!") Our universities reckon such things quite regular—and they abhor all saints!) We venture to assert, without the least fear of being contradicted by the fact or the reason, that there is absolutely no religion taught, and no attention to its observances inculcated, by the mere existence of divinity lectures and the compliance with certain outward forms; and that whatever is learnt or imbibed of this sort at either university is through the operation of private instruction, and consequently may be just as well learnt, and as fully imbibed, by the students of the London University, under the tuition of their parents and spiritual instructors.

'It appears that this question, as to which the religious differences of the supporters of the plan offered so many impediments, being once settled in a manner generally satisfactory, and according with the soundest principles of universal toleration, no further difficulty was experienced, and the sketch of the proposed plan was submitted on the 1st of July, 1825, to a public meeting. This is said to have been one of the most numerous, possibly the most numerous, ever assembled in the city of London. The lord mayor presided; and was supported both by the most eminent promoters of the plan, and by the greatest names in the city for respectability and wealth. The proceedings were marked by the greatest unanimity and enthusiasm, and under these very favorable auspices this most important scheme has been ushered into the world. We shall shortly sketch the outlines of it as far as they are yet determined.

'We shall begin with the constitution of the proprietary body, or what may be termed the political, as contradistinguished from the literary portion of the plan. The funds required are to be raised by shares of £100 each, and subscriptions or donations of £50. The whole cost, on a very liberal estimate, has been calculated at £200,000, and it is proposed to have 3000 shares, so as not to call for more than 66 per cent. on each share, and leave the rest as a reserve for extension of the plan, or other unforeseen contingencies. Each share is to have the privilege of sending one pupil to the university, and to receive also an interest not exceeding four per cent. Each shareholder is to have a vote at all general meetings, and in the election of the directors, or council of management and proxies are to



be allowed. Each contributor of £50 by way of gift is to have all the privileges of a shareholder for life only, and inalienably; but is to receive no interest. The executive government is to be vested in a council of twenty-one, composed of a chancellor and vice-chancellor, to be chosen, the former for life, the latter for two years, and nineteen councillors, of whom four are to go out annually, and to be ineligible for one year after. This council is to choose all the professors, to superintend them, and suspend and remove; in short to exercise all the functions of visitors. The whole circle of the sciences and of literature, except theology, is to be taught by the various professors. These branches it is unnecessary to enumerate. The professors are to be divided into two colleges, one of literature, and the other of science and the useful arts; and each college is to have a principal elected by the professors from their own body, and for life. Every thing relative to academical discipline is to be under the control of these learned persons. The salaries of the professors are to be very moderate, in order that their emoluments may depend upon their classes; the students all paying such fees as the council shall fix; the salaries are also to be fixed by the council. Beside the fees to the professors, the students are to pay five guineas yearly to the general fund, and one guinea to the library. Out of the general fund the interest to the shareholders is to be paid; and as this is not to exceed £4 a share, and as each share will send one pupil, it is plain there can never be wanting an ample fund for paying the interest.

A chapel, where divine service is performed according to the rules of the established church, has been recently opened near the university; and the Dissenters have advertised a similar establishment for the benefit of their youth.

February 25th, 1829, the proprietors met in the theatre of the institution to receive the first annual report of its progress. Lord Milton was in the chair; and the report stated that the receipts of the year amounted to £59,803 12s. Its expenditure was £47,568 14s. 3d. Receipts from students £1902 5s. 10d. The report calculated the annual current expenses of the university at £5500, which would be produced by 11,000 students. At this period there were 557 in the university. May 23d the prizes and honors of the medical classes (which opened in October 1828) were distributed at the university by the marquis of Lansdown. Of 182 students of these classes sixty-five had competed for prizes and honors, and fifty-two obtained them.

UNIVERSITY COURTS in England. The two universities enjoy the sole jurisdiction, in exclusion of the king's courts, over all civil actions and suits whatsoever, where a scholar or privileged person is one of the parties; excepting in such cases where the right of freehold is concerned. And then by the university charter they are at liberty to try and determine, either according to the common law of the land, or according to their own local customs, at their discretion; which has generally led them to carry on their process in a course much conformed to the civil law. This privilege, so far as it relates to civil causes, is exercised at Oxford in the chancellor's court; the judge of which is the vice-chancellor, his deputy, or assessor. From his sentence an appeal lies to delegates appointed by the congregation; from thence to other delegates of the

house of convocation; and, if they all three concur in the same sentence, it is final, at least by the statutes of the university, according to the rule of the civil law. But, if there be any discordance or variation in any of the three sentences, an appeal lies in the last resort to judges, delegates appointed by the crown, under the great seal in chancery. As to the jurisdiction of the university courts in criminal matters, the chancellor's court at Oxford, and probably also that of Cambridge, hath authority to try all offences or misdemeanors under the degree of treason, felony, or mayhem; and the trial of treason, felony, and mayhem, by a particular charter, is committed to the university jurisdiction in another court, namely, the court of the lord high steward of the university. The process of the trial is this: the high steward issues one precept to the sheriff of the county, who thereupon returns a panel of eighteen freeholders; and another precept to the bedells of the university, who thereupon return a panel of eighteen matriculated laymen, laicos privilegio universitatis gaudentes; and by a jury formed de medietate, half of freeholders, and half of matriculated persons, is the indictment to be tried; and that in the guildhall of the city of Oxford. And if execution be necessary to be awarded, in consequence of finding the party guilty, the sheriff of the county must execute the university process; to which he is annually bound by an oath.

UNIVOCAL, *adj.* } Lat. *univocus*. Having  
UNIVOCALLY, *adv.* } one meaning; certain; regular: the adverb corresponds.

How is sin *univocally* distinguished into venial and mortal, if the venial be not sin? *Hall.*

*Univocal* words are such as signify but one idea, or but one sort of thing; equivocal words are such as signify two or more different ideas, or different sorts of objects. *Watts.*

UNJOY'OUS, *adj.* Not gay; not cheerful.

Morn, late rising o'er the drooping world,  
Lifts her pale eye *unjoyous*. *Thomson's Winter.*

UNJUST, *adj.* } Fr. *injuste*; Lat. *in-*  
UNJUSTIFIABLE, } *justus*. Iniquitous; con-  
UNJUSTIFI'ABLENESS, } trary to equity or justice:  
UNJUSTIFI'ABLY, *adv.* } unjustly corresponds:  
UNJUST'LY. } unjustifiable is not be justified or vindicated: the noun substantive and adverbs corresponding.

He that is *unjust* in the least, is *unjust* also in much. *Luke xvi.*

The Piercies,  
Finding his usurpation most *unjust*,  
Endeavoured my advancement to the throne. *Shaksp.*  
He wished them to consider of the illegality of all those commissions, and of the *unjustifiableness* of all the proceedings which had been by virtue of them.

*Clarendon.*

The *unjust* the just hath slain.  
If aught against my life  
Thy country sought of thee, it sought *unjustly*. *Id.*  
When it is unlawful upon the *unjustifiableness* of the ground, we sin in it till we put and end to it.

*Kettlewell.*

He who was so *unjust* as to do his brother an injury, will scarce be so just to condemn himself for it.

*Locke.*

If these reproaches, which aim only at ostentation of wit, be so *unjustifiable*, what shall we say to those that are drawn, that are founded in malice?

*Government of the Tongue.*

UNKEMPT, *adj.* Not combed. Obsolete.



Theout, to that I chose thou dost me tempt ;  
But ah ! too well I wot my humble vain,  
And how my rhimes been rugged and *unkempt*.

Spenser.

**UNKEN'NEL**, *v. a.* To drive from his hole.  
Search, seek, find out. I warrant we'll *unkennel* the  
fox. Let me stop this way first. So, now, uncape.

Shakespeare.

I warrant you, colonel, we'll *unkennel* him. Dryden.  
**UNKENT**, *adj.* Un and ken to know. Un-  
known. Obsolete.

Go, little book, thyself present,  
As child whose parent is *unhent*,  
To him, that is the president  
Of nobleness and chivalrie.

Spenser.

**UNKOPT**, *adj.* Not kept; not retained; un-  
observed.

Many things kept generally heretofore, are now in  
like sort generally *unhept*, and abolished, every where.

Hooker.

**UNKIND**, *adj.* } Not favorable; not  
**UNKIND'LY**, *adj. & adv.* } benevolent : unkindly,  
**UNKIND'NESS**, *n. s.* } as an adjective, is un-  
natural ; unfavorable ; malignant : as an adverb, it,  
as well as unkindness ; agrees with unkind.

They, with their filthiness,  
Polluted this same gentle soil long time,  
That their own mother loathed their beastliness,  
And 'gan abhor her brood's *unkindly* crime,  
All were they born of her own native slime.

Spenser.

In nature there's no blemish but the mind ;  
None can be called deformed, but the *unkind*.  
Take no *unkindness* of his hasty words.

Id.

The herd *unkindly* wise,  
Or chases him from thence, or from him flies. Denham.  
Eve—As one who loves, and some *unkindness* meets,  
With sweet, austere composure, thus replied. Milton.

If we *unkindly* part,  
Will not the poor fond creature break her heart ?

Dryden.

**UNKING'**, *v. a.* To deprive of royalty.  
It takes the force of law : how then, my lord !

If as they would *unking* my father now,  
To make you way.

Southern.

**UNKISSED**, *adj.* Not kissed.  
Foul words are but foul wind, and foul wind is but  
foul breath, and foul breath is noisome ; therefore I  
will depart *unkist*.

Shakespeare.

**UNKLE**, *n. s.* Fr. *oncle*. The brother of a fa-  
ther or mother. See **UNCLE**.

The English power is near, led on by Malcolm,  
His *unkle* Siward, and the good Macduff. Shakespeare.

**UNKNIGHT'LY**, *adj.* Unbecoming a knight.  
With six hours hard riding through wild places,  
I overgot them a little before night, near an old ill-  
favoured castle, the place where I perceived they meant  
to perform their *unknightly* errand.

Sidney.

**UNKNIT'**, *v. a.* To unweave ; separate ; open.  
Would he had continued to his country  
As he began, and not *unknit* himself

The noble knot he made !

Shakespeare. *Coriolanus*.

*Unknt* that threat'ning, unkind brow. Shakespeare.

**UNKNOWN'**, *v. a.* } To cease to know : un-  
**UNKNOWN'ABLE**, *adj.* } knowable, is not to be  
**UNKNOWN'ING**, } known : unknowing, ig-  
**UNKNOWN'INGLY**, *adv.* } norant ; not practised :  
**UNKNOWN'**, *adj.* } the adverb correspond-  
ing : unknown, not known in nature or degree.

Let me speak to the yet *unknowing* world,  
How these things came about. Shakespeare. *Hamlet*.

I am yet

*Unknown* to woman ; never was forsworn. Shakespeare.

Here may I always on this downy grass,  
*Unknown*, unseen, my easy minutes pass ! Roscommon.

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His hounds, *unknowing* of his change, pursue  
The chase, and their mistaken master slew. Dryden.  
The beauty I behold has struck me dead :  
*Unknowingly* she strikes, and kills by chance. Id.

It's already known ;

Oh ! can you keep it from yourselves, *unknow* it ?

Smith.

At fear of death, that saddens all  
With terrors round, can reason hold her thrown ;  
Despise the known, nor tremble at the ' *unknown* !

Pope.

Distinguish well between knowables and *unknowables*.  
Watts.

**UNLA'BORED**, *adj.* Not produced by labor,  
or art ; spontaneous.

*Unlaboured* harvests shall the fields adorn,  
And clustered grapes shall blush on every thorn.

Dryden.

**UNLACE'**, *v. a.* To loose any thing fastened  
with strings.

Can I forget, when they in prison placing her,  
With swelling heart, in spite, and due disdainfulness,  
She lay for dead, till I helped with *unlacing* her ?

Sidney.

You *unlace* your reputation,  
And spend your rich opinion for the name

Of a night-brawler. Shakespeare. *Othello*.

The helmet from my brow *unlaced*. Pope's *Odyssey*.

**UNLADE'**, *v. a.* To remove from the vessel  
which carries.

We landed at Tyre ; for there the ship was to *unlade*  
her burden.

Acts xxi. 3.

He's a foolish seaman,  
That, when his ship is sinking, will not  
*Unlade* his hopes into another bottom.

Denham.

**UNLAID**, *adj.* Not placed ; not fixed ; not  
stilled or quieted.

No evil thing that walks by night,  
Blue, meagre hag, or stubborn *unlaid* ghos.  
Hath hurtful power o'er true virginity.

Milton.

**UNLAMENT'ED**, *adj.* Not deplored.

After six years spent in outward opulency, and in-  
ward murmur that it was not greater, he died *unlame-*  
*mented* by any.

Clarendon.

**UNLATCH'**, *v. a.* To open by lifting up the  
latch.

My worthy wife  
The door *unlatched* ; and, with repeated calls,  
Invites her former lord within my walls.

Dryden.

**UNLAWFUL**, *adj.* } Contrary to, or not  
**UNLAWFULLY**, *adv.* } permitted by law ; the  
**UNLAWFULNESS**, *n. s.* } derivatives correspond-  
ing.

It is an *unlawful* thing for a Jew to come unto one of  
another nation.

Acts, x. 28.

I had rather my brother die by the law, than my son  
should be *unlawfully* born.

Shakespeare.

He that gains all that he can lawfully this year, next  
year will be tempted to gain something *unlawfully*.

Taylor

The original reason of the *unlawfulness* of lying is,  
that it carries with it an act of injustice, and a violation  
of the rights of him to whom we were obliged to signify  
our minds.

South.

**UNLEARN'**, *v. a.* } To forget ; disuse what  
**UNLEARN'ED**, *adj.* } has been learned : un-  
**UNLEARN'EDLY**, *adv.* } learned is ignorant ; un-  
instructed ; not befitting a learned man : the ad-  
verb corresponding.

I will prove those verses to be very *unlearned*, neither  
savouring of poetry, wit, or invention.

Shakespeare.

The government of the tongue is a piece of morality  
which sober nature dictates, which yet our greatest  
scholars have *unlearned*.

Decay of Piety.

2 H

He, in his epistle, plainly affirmeth, they think *unlearnedly* who are of another belief.

*Broune's Vulgar Errours.*

Some at the bar with subtilty defend

The cause of an *unlearned*, noble friend, *Dryden.*

A wicked man is not only obliged to learn to do well, but *unlearn* his former life. *Rogers.*

**UNLEAVENED**, *adj.* Not fermented; not mixed with fermenting matter.

They baked *unleavened* cakes of the dough, for it was not leavened. *Exodus*, ii. 39.

**UNLEISUREDNESS**, *n. s.* Business; want of time; want of leisure. Not in use.

My essay touching the scripture having been written partly in England, partly in another kingdom, it were strange if there did not appear much unevenness, and if it did not betray the *unleisuredness* of the wandering author. *Boyle.*

**UNLESS**, *conjunct.* Except; if not; supposing that not.

Let us not say, we keep the commandments of the one, when we break the commandments of the other; for, *unless* we observe both, we obey neither. *Hooker.*

What hidden strength,

*Unless* the strength of heaven, if you mean that?

*Milton.*

No poet ever sweetly sung,

*Unless* he were, like Phœbus, young;

Nor ever nymph inspired to rhyme,

*Unless*, like Venus, in her prime. *Swift.*

**UNLESSONED**, *adj.* Not taught.

The full sum of me

*Is* an *unlessoned* girl, unschooled, unpractised;

Happy in this, she is not yet so old

But she may learn. *Shakspeare.*

**UNLETTERED**, *adj.* Unlearned; untaught.

When the apostles of our Lord were ordained to alter the laws of heathenish religion, St. Paul excepted, the rest were unschooled and *unlettered* men. *Hooker.*

**UNLEVELLED**, *adj.* Not laid even.

All *unlevelled* the gay garden lies. *Tickell.*

**UNLIBIDINOUS**, *adj.* Not lustful; pure from carnality.

In those hearts

Love *unlibidinous* reigned; nor jealousy

Was understood, the injured lover's hell. *Milton.*

**UNLICENCED**, *adj.* Having no regular permission.

Ask what boldness brought him hither

*Unlicensed.* *Milton's Paradise Lost.*

Warn the thoughtless, self-confiding train,

No more *unlicensed* thus to brave the main. *Pope.*

**UNLICK'ED**, *adj.* Shapeless; not formed: from the opinion that the bear licks her young to shape.

The bloody bear, an independent beast,

*Unlicked* to form, in groans her hate exprest. *Dryden.*

**UNLIGHTED**, *adj.* Not kindled; not set on fire.

The sacred wood which on the altar lay,

Untouched, *unlighted* glows. *Prior.*

**UNLIGHTSOME**, *adj.* Dark; gloomy; wanting light.

First the sun,

A mighty sphere! he framed, *unlightsome* first,

Though of æthereal mould. *Milton.*

**UNLIKE**, *adj.*

**UNLIKE'LIHOOD**, *n. s.*

**UNLIKE'LINES**,

**UNLIKE'LY**, *adj. & adv.*

**UNLIKE'NESS**, *n. s.*

**probable**; unpromising; improbably: unlikeness, dissimilitude.

Dissimilar; having no resemblance: unlikeness and unlikeness mean improbability: unlikely is im-

Effects are miraculous and strange, when they grow by *unlikely* means. *Hooker.*

Make not impossible that which but seems *unlike*.

*Shakspeare.*

Imitation pleases, because it affords matter for entering into the truth or falsehood of imitation, by comparing its likeness or *unlikeness* with the original.

*Dryden.*

The work was carried on, amidst all the *unlikelihoods* and discouraging circumstances imaginable; the builders holding the sword in one hand, to defend the trowel working with the other. *South.*

**UNLIMITABLE**, *adj.*

**UNLIM'ITED**,

**UNLIM'ITEDLY**, *adv.*

Admitting no bounds; having no bounds or limits: the adverb corresponding.

Many ascribe too *unlimitedly* to the force of a good meaning, to think that it is able to bear the stress of whatsoever commissions they shall lay upon it.

*Decay of Piety.*

It is some pleasure to a finite understanding, to view *unlimited* excellencies, which have no bounds, though it cannot comprehend them. *Tillotson.*

He tells us 'tis *unlimited* and *unlimitable*. *Locke.*

**UNLINEAL**, *adj.* Not coming in the order of succession.

They put a barren sceptre in my gripe,

Thence to be wrenched with an *unlineal* hand,

No son of mine succeeding. *Shakspeare. Macbeth.*

**UNLINK**, *v. a.* To untwist; open.

About his neck

A green and gilded snake had wreathed itself;

Who with her head, nimble in threats, approached

The opening of his mouth; but suddenly,

Seeing Orlando, it *unlinked* itself. *Shakspeare.*

**UNLIQUIFIED**, *adj.* Unmelted; undissolved.

These huge, unwieldy lumps, remained in the melted matter rigid and *unliquified*, floating in it like cakes of ice in a river. *Addison on Italy.*

**UNLOAD**, *v. a.* To disburden; exonerate; free from load.

Like an ass, whose back with ingots bows,

Thou bearest thy heavy riches but a journey,

And death *unloadeth* thee. *Shakspeare.*

Nor can my tongue *unload* my heart's great burthen.

*Id.*

Some to *unload* the fertile branches run. *Pope.*

**UNLOCK**, *v. a.* To open what is shut with a lock, or other fastening; to open generally.

I have seen her *unlock* her closet, take forth paper.

*Shakspeare.*

I yielded, and *unlocked* her all my heart,

Who, with a grain of manhood well resolved,

Might easily have shook off all her snares. *Milton.*

**UNLOOK'ED**, *adj.* Unexpected; not fore-

**UNLOOK'ED FOR**, *seen.*

Whatever is now is *unlooked for*; and ever it mends some, and pares others. *Bacon.*

Nor Fame I slight, nor for her favours call;

She comes *unlooked for*, if she comes at all. *Pope.*

**UNLOOSE**, *v. a. & v. n.* To loose; to fall in pieces. 'A word perhaps barbarous and ungrammatical, the particle prefixed implying negation; so that to *unloose* is, properly, to bind.'—Johnson.

The latchet of his shoes I am not worthy to stoop down and *unloose*. *Mark* i. 7.

York, *unloose* your long imprisoned thoughts,

And let thy tongue be equal with thy heart. *Shak.*

**UNLOV'ED**, *adj.*

**UNLOVE'LINESS**, *n. s.*

**UNLOV'ING**, *adj.*

Not loved: unamiable; unkind.

As love does not always reflect itself, Zelmene, though reason there was to love Palladius, yet could



not ever persuade her heart to yield with that pain to Palladius, as they feel, that feel *unloved* love.

*Sidney.*

The old man, growing only in age and affection, followed his suit with all means of dishonest servants, large promises, and each thing else that might help to countervail his own *unloveliness*.

*Id.*

Thou, blest with a goodly son,  
Didst yield consent to disinherit him;  
Which argued thee a most *unloving* father. *Shakespeare.*

UNLUCK'Y, *adj.* } Unfortunate; unhappy;  
UNLUCK'ILY, *adv.* } miserable; mischievous: the  
adverb corresponding.

His friendship is counterfeit, seldom to trust;  
His doings *unlucky*, and ever unjust. *Tusser.*

Then shall I you recount a rueful case,  
Said he; the which with this *unlucky* eye  
I late beheld. *Spenser.*

Things have fallen out so *unluckily*,  
That we have had no time to move our daughter.  
*Shakespeare.*

There was a lad, the *unluckiest* of his crew,  
Was still contriving something bad, but new. *King.*

UNLUSTROUS, *adj.* Wanting splendor;  
wanting lustre.

Should I join gripes with hands  
Made hard with hourly falsehood, as with labour;  
Then glad myself with peeping in an eye,  
Base and *unlustrous* as the smoaky light  
That's fed with stinking tallow. *Shakespeare.*

UNLUTE', *v. a.* To separate vessels closed  
with chemical cement.

Our antimony, thus handled, affordeth us an ounce  
of sulphur, of so sulphureous a smell, that, upon the  
*unluting* the vessels, it infected the room with a scarce  
supportable stink. *Boyle.*

UNMADE', *adj.* Not yet formed; not created;  
deprived of being or qualities.

Thou wast begot in Demogorgon's hall,  
And sawest the secrets of the world *unmade*. *Spenser.*

The first earth was perfectly *unmade* again, taken all  
to pieces, and framed a-new. *Woodward.*

UNMAIM'ED, *adj.* Not deprived of any es-  
sential part.

An interpreter should give his author entire and *un-  
maimed*; the diction and the versification only are his  
proper province. *Pope's Preface to the Iliad.*

UNMAKE', *v. a.* } To deprive of former  
UNMAKE'ABLE, *adj.* } qualities before possessed.  
To deprive of form or being. See UNMADE. The  
adjective corresponds.

They've made themselves, and their fitness now  
Does *unmake* you. *Shakespeare. Macbeth.*

If the principles of bodies are unalterable, they are  
also *unmakeable* by any but a divine power. *Grew.*

UNMAN', *v. a.* To deprive of the constituent  
qualities of a human being; to break the spirit;  
deject.

What, quite *unmanned* in folly? *Shakespeare.*

Her clamours pierce the Trojan's ears,  
*Unman* their courage, and augment their fears. *Dryden.*

UNMAN'AGEABLE, *adj.* } Not manageable;  
UNMAN'AGED, } not easily govern-  
ed; not broken in, or tutored.

Like colts, or *unmanaged* horses, we start at dead  
bones and lifeless blocks. *Taylor.*

They'll judge every thing by models of their own,  
and thus are rendered *unmanageable* by any authority  
but that of absolute dominion. *Glanville.*

Savage princes flash out sometimes into an irregular  
greatness of thought, and betray, in their actions, an  
unguided force, and *unmanaged* virtue. *Felton.*

UNMAN'LIKE, *adj.* } Unbecoming a human  
UNMAN'LY, } being.

It is strange to see the *unmanlike* cruelty of man-  
kind. *Sidney.*

New customs,  
Though never so ridiculous,  
Nay, let them be *unmanly*, yet are followed. *Shaksp.*

My servitude, ignoble,  
*Unmanly*, ignominious, infamous. *Milton's Agonistes.*

UNMAN'NERED, *adj.* } Rude; brutal;  
UNMAN'NERLY, *adj. & adv.* } uncivil: all the de-  
UNMAN'NERLINESS, *n. s.* } rivatives corre-  
sponding.

He called them untaught knaves, *unmannerly*,  
To bring a slovenly unhandsome corse  
Betwixt the wind and his nobility. *Shakespeare.*

Forgive me,  
If I have used myself *unmannerly*. *Id.*

You have a slanderous, beastly, unwashed tongue  
In your rude mouth, and savouring yourself,  
*Unmannered* lord. *Ben Jonson's Catiline.*

A sort of *unmannerliness* is apt to grow up with young  
people, if not early restrained; and that is a forward-  
ness to interrupt others speaking. *Locke on Education.*

UNMANURED, *adj.* Not cultivated.

The land,  
In antique times, was savage wilderness;  
Unpeopled, *unmanured*, unproved, unpraised. *Spenser.*

UNMARK'ED, *adj.* Not observed; not re-  
garded.

I got a time, *unmarked* by any, to steal away,  
I cared not whither, so I might escape them. *Sidney.*

*Unmarked*, unhonoured at a monarch's gate. *Pope.*

UNMAR'RIED, *adj.* Having no husband, or  
no wife.

*Unmarried* men are best friends, best masters, best  
servants, but not always best subjects; for they are light  
to run away. *Bacon.*

Husbands and wives, boys and *unmarried* maids.  
*Dryden.*

UNMASK', *v. a.* To strip of a mask, or of any  
disguise.

My husband bids me; now I will *unmask*.  
This is that face was worth the looking on. *Shaksp.*

With full cups they had *unmasked* his soul. *Roscom.*

O, I am yet to learn a statesman's art;  
My kindness and my hate *unmasked* I wear,  
For friends to trust, and enemies to fear. *Dryden.*

UNMASTERED, *adj.* } Not subdued: not  
UNMASTERABLE, } conquerable.

The fætor is *unmasterable* by the natural heat of man;  
not to be dulcified by concoction, beyond unsavoury  
condition. *Brown's Vulgar Errors.*

He cannot his *unmastered* grief sustain,  
But yields to rage, to madness, and disdain. *Dryden.*

UNMATCH'ED, *adj.* } Matchless; having no  
UNMATCHABLE, } match, or equal: not to  
be matched.

England breeds very valiant creatures; their mastiffs  
are of *unmatchable* courage. *Shakespeare.*

That glorious day, which two such navies saw,  
As each, *unmatched*, might to the world give law. *Dry.*

UNMEAN'ING, *adj.* } Expressing no mean-  
UNMEANT', } ing; having no meaning;  
not meant.

The flying spear was after Ilus sent:  
But Rhætus happened on a death *unmeant*. *Dryden.*

With round, *unmeaning* face. *Pope.*

UNMEA'SURED, *adj.* } Immense; infinite:  
UNMEA'SURABLE, } not to be measured.

Common mother! thou  
Whose womb *unmeasurable*, and infinite breast  
Teems and feeds all. *Shakespeare. Timon.*

Lost to the world, in vast, *unmeasured* space.

*Blackman.*

**UNMED'DLED WITH**, *adj.* Not touched; not altered.

The flood-gate is opened and closed for six days, continuing other ten days *unmeddled with*. *Carew.*

**UNMEDITATED**, *adj.* Not formed by previous thought.

Neither various style,  
Nor holy rapture, wanted they, to praise  
Their Maker, in fit strains pronounced, or sung  
*Unmediated.* *Milton's Paradise Lost.*

**UNMEET**, *adj.* Not fit; not proper; not worthy.

Madam was young, *unmeet* the rule of sway. *Spens.*

Alack! my hand is sworn  
Ne'er to pluck thee from thy thorn;  
Vow, alack! for youth *unmeet*,  
Youth so apt to pluck a sweet. *Shakspeare.*

Its fellowship *unmeet* for thee,  
Good reason was thou freely should'st dislike. *Milton.*

**UNMELLOWED**, *adj.* Not fully ripened.  
His years but young, but his experience old;  
His head *unmellowed*, but his judgment ripe. *Shaksp.*

**UNMELT'ED**, *adj.* Undissolved by heat.  
Snow on *Ætna* does *unmelted* lie,  
Whence rowling flames and scattered cinders fly. *Waller.*

**UNMENTIONED**, *adj.* Not told; not named.  
They left not any error in government *unmentioned* or unexpressed, with the sharpest and most pathetic expressions. *Clarendon.*

Oh let me here sink down  
Into my grave, *unmentioned* and unmourned. *Southern.*

**UNMER'CHANTABLE**, *adj.* Unsaleable; not vendible.

They feed on salt, *unmerchantable* pilchard. *Carew.*  
**UNMER'CIFUL**, *adj.* } Cruel; severe; in-  
**UNMER'CIFULLY**, *adv.* } clement; exorbitant:  
the adverb corresponds.

A little warm fellow fell most *unmercifully* upon his Gallick majesty. *Addison.*

For the humbling of this *unmerciful* pride in the eagle, Providence has found out a way. *L'Estrange.*

Whosoever doctrine represents God as unjust and *unmerciful*, cannot be from God, because it subverts the very foundation of religion. *Rogers.*

**UNMER'CIFULNESS**, *n. s.* Inclemency; cruelty; want of tenderness.

Consider the rules of friendship, let justice turn into *unmercifulness*. *Taylor's Rule of Living Holy.*

**UNMERITED**, *adj.* Not deserved; not obtained otherwise than by favor.

A tottering pinnacle *unmerited* greatness is. *Government of the Tongue.*

This day, in whom all nations shall be blest,  
Favour *unmerited* by me, who sought  
Forbidden knowledge by forbidden means. *Milton.*

**UNMILK'ED**, *adj.* Not milked.  
The ewes still folded with distended thighs,  
*Unmilked*, lay bleating in distressful cries. *Pope.*

**UNMIND'ED**, *adj.* } Not heeded; not re-  
**UNMIND'FUL** } garded: not heedful or re-  
gardful.

Worldly wights in place  
Leave off their work, *unmindful* of this law,  
To gaze on them. *Spenser.*

He was  
A poor, *unminded* outlaw, sneaking home;  
My father gave him welcome to the shore. *Shakspeare.*

He after Eve seduced, *unminded*, slunk  
Into the wood. *Milton.*

I shall let you see that I am not *unmindful* of the things you would have me remember. *Boyle.*

**UNMING'GLE**, *v. a.* } To separate things  
**UNMING'GLEABLE**, *adj.* } mixed: not to be mixed:  
**UNMING'LED**. } pure; not mixed.

As easy mayest thou fall

A drop of water in the breaking gulph,  
And take *unmingled* thence your drop again,  
Without addition or diminishing. *Shakspeare.*

It will *unmingle* the wine from the water; the wine  
ascending, and water descending. *Bacon.*

Springs on high hills are pure and *unmingled*. *Id.*  
The *unmingleable* liquors retain their distinct surfaces. *Boyle.*

**UNMIR'Y**, *adj.* Not fouled with dirt.  
Pass, with safe, *unmiry* feet,  
Where the raised pavement leads athwart the street  
*Gay.*

**UNMITIGATED**, *adj.* Not softened.  
With publick accusation, uncovered slander, *unmiti-*  
*gated* rancour. *Shakspeare.*

**UNMIX'ED**, *adj.* } Not mingled with any  
**UNMIXT**. } thing; pure; not corrupted  
by additions.

Thy commandment all alone shall live  
Within the book and volume of my brain,  
*Unmixed* with baser matter. *Shakspeare.*

It exhibits a mixture of new conceits and old; whereas  
the instauration gives the new, *unmixed* otherwise than  
with some little aspersion of the old. *Bacon.*

**UNMOAN'ED**, *adj.* Not lamented.  
Fatherless distress was left *unmoaned*;  
Your widow dolours likewise be unwept. *Shakspeare.*

**UNMOIST'**, *adj.* } Not wet: not made wet.  
**UNMOISTENED**. }

The incident light that meets with a grosser liquor  
will have its beams more or less interruptedly reflected  
than they would be if the body had been *unmoistened*. *Boyle.*

Volatile Hermes, fluid and *unmoist*,  
Mounts on the wings of air. *Philips.*

**UNMOLESTED**, *adj.* Free from disturbance;  
free from external troubles.

Cleopatra was read o'er,  
While Scot, and Wake, and twenty more,  
That teach one to deny one's self,  
Stood *unmolested* on the shelf. *Prior.*

**UNMOOR**, *v. a.* To loose from land, by taking  
up the anchors.

Soon as the British ships *unmoor*,  
And jolly long-boat rows to shore. *Prior.*

We with the rising morn our ships *unmoored*,  
And brought our captives and our stores aboard. *Pope.*

**UNMOR'ALIZED**, *adj.* Untutored by morality.  
This is censured as the mark of a dissolute and *un-*  
*moralized* temper. *Norris.*

**UNMORT'GAGED**, *adj.* Not mortgaged.  
Is there one God unsworn to my destruction?

The least *unmortgaged* hope? for, if there be,  
Methinks I cannot fall. *Dryden's All for Love.*

**UNMORTIFIED**, *adj.* Not subdued by sorrow  
and severities.

If our conscience reproach us with *unmortified* sin,  
our hope is the hope of an hypocrite. *Rogers.*

**UNMOVED**, *adj.* } Not put out of one place  
**UNMOV'ABLE**, } into another: not having  
**UNMOV'ING**. } motion: not to be moved.

Vipers that do fly  
The light, oft under *unmoved* stalls do lie. *May.*

Among innumerable false, *unmoved*,  
Unshaken, unseduced. *Milton.*

Nor winds, nor winter's rage, o'erthrows  
His bulky body, but *unmoved* he grows. *Dryden.*

The celestial bodies, without impulse, had continued  
unactive, *unmoving* heaps of matter. *Cheyne.*

**UNMOULD**, *v. a.* To change as to the form.  
Its pleasing poison  
The visage quite transforms of him that drinks



And the inglorious likeness of a beast  
Fixes instead, unmoulding reason's mintage,  
Charactered in the face. *Milton.*

UNMOURN'ED, *adj.* Not lamented; not deplored.

O let me here sink down  
Into my grave unmentioned and unmourned. *Southern.*

UNMUFFLE, *v. a.* To put off a covering from the face.

*Unmuffle, ye faint stars!* *Milton.*

UNMU'SICAL, *adj.* Not harmonious; not pleasing by sound.

Let argument bear no *unmusical* sound,  
Nor jars interpose, sacred friendship to grieve.

*Ben Jonson.*

UNMUZ'ZLE, *v. a.* To loose from a muzzle.

Now *unmuzzle* your wisdom. *Shakespeare.*

Have you not set mine honour at the stake,  
And baited it with all the *unmuzzled* thoughts

Thy tyrannous heart can think? *Id.*

UNNA, a large river in the north-west of European Turkey, which rises the mountains of Herzegovina, flows through Bosnia, along the border of Croatia, and falls into the Save at Usz-tica. It is navigable for a considerable distance.

UNNA'MED, *adj.* Not mentioned.

Author of evil, unknown till thy revolt,  
*Unnamed* in heaven. *Milton's Paradise Lost.*

UNNATURAL, *adj.* } Contrary to the laws  
UNNAT'URALNESS, *n. s.* } of nature; contrary to

UNNAT'URALLY, *adv.* } common instincts: the  
adverb and noun substantive corresponding.

The God which is the God of nature doth never teach  
*unnaturalness.* *Sidney.*

Her offence

Must be of such *unnatural* degree,  
That monsters it. *Shakespeare. King Lear.*

'Tis irreverent and *unnatural* to scoff at the infirmities  
of old age. *L'Estrange.*

All the world have been frighted with an apparition  
of their own fancy, or they have most *unnaturally* con-  
spired to cozen themselves. *Tillotson.*

UNNAVIGABLE, *adj.* Not to be navigated.

Pindar's *unnavigable* song

Like a swift stream from mountains pours along.  
*Cowley.*

Some who the depths of eloquence have found,  
In that *unnavigable* stream were drowned. *Dryden.*

UNNECESSARY, *adj.* } Needless; not want-  
UNNE'CESSARILY, *adv.* } ed; useless: the ad-

UNNE'CESSARINESS, *n. s.* } verb and noun sub-  
stantive corresponding.

The doing of things *unnecessary* is many times the  
cause why the most necessary are not done. *Hooker.*

*Unnecessary* coinage, as well as *unnecessary* revival of  
words, runs into affectation; a fault to be avoided on  
either hand. *Dryden.*

These are such extremes as afford no middle for in-  
dustry to exist, hope being equally out-dated by the  
desperateness or *unnecessariness* of an undertaking.

*Decay of Piety.*

'Tis highly imprudent, in the greatest of men, *un-*  
*necessarily* to provoke the meanest. *L'Estrange.*

UNNEIGH'BOURLY, *adj. & adv.* Not kind;  
not suitable to the duties of a neighbour: with  
mutual mischief or with unkindness.

These two Christian armies might combine  
The blood of malice in a vein of league,

And not to spend it so *unneighbourly.* *Shakespeare.*

Parnassus is but a barren mountain, and its inhabi-  
tants make it more so by their *unneighbourly* deportment.

*Garth.*

UNNERVE', *v. a.* } To weaken; enfeeble:

UNNERVATE', *adj.* } weak; enfeebled.

Pyrrhus at Priam drives, in rage strikes wide;  
But with the whiff and wind of his fell sword  
The unnerved father falls. *Shakespeare. Hamlet.*  
The precepts are often so minute and full of circum-  
stances that they weaken and *unnerve* his verse.

*Addison.*

Scaliger calls them fine and lively in Mæuseus; but  
abject, *unnervate*, and unharmonious in Homer.

*Broome.*

UNNETH', *adj.* } From un and Sax. eaz, easy.  
UNNETHES'. } Scarcely; hardly. Obsolete.

Diggon, I am so stiffe and stanke,  
That *unneth* I may stand any more;  
And how the western wind bloweth sore,  
Beating the withered leaf from the tree. *Spenser.*

UNNO'BLE, *adj.* Mean; ignominious; ig-  
noble.

I have offended reputation;  
A most *unnooble* swerving. *Shakespeare.*

UNNOTED, *adj.* Not observed; not regarded;  
not heeded.

They may jest,

Till their own scorn return to them *unnoted.* *Shaksp.*

A shameful fate now hides my hopeless head,  
Unwept, *unnoted*, and for ever dead. *Pope's Odyssey.*

UNNUM'BERED, *adj.* Innumerable.

The skies are painted with *unnumbered* sparks;  
They are all fire, and every one doth shine. *Shaksp.*  
Our bodies are but the anvils of pain and diseases  
and our minds the hives of *unnumbered* cares and pas-  
sions. *Raleigh.*

UNOBEY'ED, *adj.* Not obeyed.

Not leave

Unworshipped, *unobeyed*, the throne supreme. *Milton.*

UNOBJECT'ED, *adj.* Not charged as a fault,  
or contrary argument.

What will he leave *unobjected* to Luther, when he  
makes it his crime that he defied the devil? *Atterbury.*

UNOBNOXIOUS, *adj.* Not liable; not ex-  
posed to any hurt.

So *unobnoxious* now, she hath buried both;  
For none to death sins, that to sin is loth. *Donne.*

In fight they stood

Unwearied, *unobnoxious* to be pained. *Milton.*

UNOBSE'QUIOUSNESS, *n. s.* Incompliance;  
disobedience.

They make one man's particular failings confining  
laws to others; and convey them as such to their suc-  
ceeders, who are bold to misname all *unobsequiousness*  
to their incogitancy, presumption. *Brown.*

UNOBSER'VED, *adj.* } Not regarded; not

UNOBSER'VABLE, } attended to; not heed-

UNOBSER'VANT, } ed; not minded: not

UNOBSER'VING. } to be observed; not  
perceptible: inattentive: unheedful.

The motion in the minute parts of any solid body,  
which is the principal cause of violent motion, though  
*unobserved*, passeth without sound. *Bacon.*

They the Son of God, our Saviour meek,  
Sung victor; and from heavenly feast refreshed,

Brought on his way with joy: he *unobserved*,

Home to his mother's house private returned. *Milton.*

The *unobserving* multitude may have some general,  
confused apprehensions of a beauty, that gilds the out-  
side frame of the universe. *Glenville.*

A piece of glass reduced to powder, the same which,  
when entire, freely transmitted the beams of light,  
acquiring by confusion a multitude of minute surfaces,  
reflects, in a confused manner, little and singly *unob-*  
*servable* images of the lucid body, that from a diapha-  
nous it degenerates into a white body. *Boyle.*

His similitudes are not placed, as our *unobserving*  
criticks tell us, in the heat of any action; but com-  
monly in its declining. *Dryden.*

**UNOBSTRUCTED**, *adj.* } Not hindered ;  
**UNOBSTRUCTIVE**. } not stopped : not  
 raising any obstacle.

*Unobstructed matter flies away,*  
*Ranges the void, and knows not where to stay.*

*Blackmore.*

Why should he halt at either station ? why  
 Not forward run in *unobstructive* sky ? *Id.*

**UNOBTAINED**, *adj.* Not gained ; not ac-  
 quired.

As the will doth now work upon that object by de-  
 sire, which is motion towards the end, as yet *unob-*  
*tained* ; so likewise, upon the same hereafter received,  
 it shall work also by love. *Hooker.*

**UNOBVIOUS**, *adj.* Not readily occurring.  
 Of all the metals, not any so constantly discloseth its  
*unobvious* colour, as copper. *Boyle on Colours.*

**UNOCCUPIED**, *adj.* Unpossessed.  
 If we shall discover further to the north pole, we  
 shall find all that tract not to be vain, useless, or *unoc-*  
*cupied.* *Roy.*

**UNOFFENDING**, *adj.* Harmless ; innocent ;  
 faultless.

If those holy and *unoffending* spirits, the angels,  
 veil their faces before the throne of his majesty ; with  
 what awe should we, sinful dust and ashes, approach  
 that infinite Power we have so grievously offended.

*Rogers.*

**UNOFFERED**, *adj.* Not proposed to ac-  
 ceptance.

For the sad business of Ireland he could not express  
 a greater sense, there being nothing left on his part  
*unoffered* or undone. *Clarendon.*

**UNOIL**, *v. a.* To free from oil.  
 A tight maid, ere he for wine can ask,  
 Guesses his meaning, and *unails* the flask. *Dryden.*

**UNOPENING**, *adj.* Not opening.  
 Benighted wanderers, the forest o'er,  
 Curse the saved candle, and *unopening* door. *Pope.*

**UNOPERATIVE**, *adj.* Producing no effects.  
 The wishing of a thing is not properly the willing of  
 it, but an imperfect velleity ; and imports no more than  
 an idle, *unoperative* complacency in the end, with a di-  
 rect abhorrence of the means. *South.*

**UNOPPOSED**, *adj.* Not encountered by any  
 hostility or obstruction.

Proud, art thou met ? thy hope was to have reached  
 The height of thy aspiring, *unopposed*,  
 The throne of God unguarded. *Milton's Paradise Lost.*

**UNORDERLY**, *adj.* Disordered ; irregular.  
 Since some ceremonies must be used, every man  
 would have his own fashion ; whereof what other would  
 be the issue, but infinite distraction and *unorderly* con-  
 fusion in the church ? *Sanderson.*

**UNORDINARY**, *adj.* Uncommon ; unusual.  
 Not used.

I do not know how they can be excused from murder,  
 who kill monstrous birds, because of an *unordinary*  
 shape, without knowing whether they have a rational  
 soul or no. *Locke.*

**UNORGANIZED**, *adj.* Having no parts in-  
 strumental to the nourishment of the rest.

It is impossible for any organ to regulate itself :  
 much less may we refer this regulation to the animal  
 spirits, an *unorganized* fluid. *Grew's Cosmologia.*

**UNORIGINAL**, *adj.* Having no birth ; un-  
*UNORIGINATED.* } generated.

Y. toiled out my uncouth passage, forced to ride  
 The untractable abyss, plunged in the womb  
 Of *unoriginal* night, and chaos wild. *Milt. Par. Lost.*

**UNORTHODOX**, *adj.* Not holding pure doc-  
 trine.

A fat benefice became a crime against its incumbent ;  
 and he was sure to be *unorthodox* that was worth the  
 plundering. *Decay of Piety.*

**UNOWNED**, *adj.* Having no owner.

England now is left  
 To tug and scramble, and to part by the teeth  
 The *unowned* interest of proud, swelling state. *Shaksp.*

**UNOWNED**, *adj.* Not acknowledged ; not  
 claimed.

O happy, *unowned* youths ! your limbs can bear  
 The scorching dog-star, and the winter's air ;  
 While the rich infant, nursed with care and pain,  
 Thirsts with each heat, and coughs with every rain.

*Gay.*

**UNPACK**, *v. a.* } To disburden ; exonerate ;  
**UNPACKED**, *adj.* } open : not packed ; not col-  
 lected with art or skill.

I, the son of a dear father murdered,  
 Must, like a whore, *unpack* my heart with words.  
*Shakspeare.*

The knight  
 Resolved to leave him to the fury  
 Of justice, and an *unpacked* jury. *Hudibras.*

He had a great parcel of glasses packed up, which  
 when he had *unpacked*, a great many cracked of them-  
 selves. *Boyle.*

**UNPAID**, *adj.* Not discharged ; sometimes  
 taking for.

Richer, than doing nothing for a bauble ;  
 Prouder, than rustling in *unpaid* for silk. *Shakspeare.*

Receive from us knee tribute not *unpaid.* *Milton.*  
 How often are relations neglected, and tradesmen  
*unpaid*, for the support of this vanity ! *Collier.*

What can atone, oh ever-injured shade !  
 Thy fate unpitied, and thy rites *unpaid* ? *Pope.*

**UNPAINED**, *adj.* } Suffering no pain : giving  
**UNPAINFUL**. } no pain.

Too unequal work we find,  
 Against unequal arms to fight in pain ;  
 Against *unpained*, impassive. *Milton's Paradise Lost.*

That is generally called hard which will put us to  
 pain sooner than change figure ; and that soft, which  
 changes the situation of its parts upon an easy and  
*unpainful* touch. *Locke.*

**UNPALATABLE**, *adj.* Nauseous ; disgusting.

The man who laughed but once to see an ass  
 Mumbling to make the cross-grained thistles pass,  
 Might laugh again : to see a jury chew  
 The prickles of *unpalatable* law. *Dryden.*

**UNPARAGONED**, *adj.* Unequalled ; un-  
 matched.

Either your *unparagoned* mistress is dead, or she's  
 out-prized by a trifle. *Shakspeare. Cymbeline.*

**UNPARALLELED**, *adj.* Not matched ; not  
 to be matched.

O fact *unparalleled* ! *Philips.*  
 The father burst out again in tears, upon receiving  
 this instance of an *unparalleled* fidelity from one, who  
 he thought had given herself up to the possession of  
 another. *Addison.*

**UNPARDONABLE**, *adj.* } Fr. *impardonable.*  
**UNPARDONABLY**, *adv.* } Irremissible : be-  
**UNPARDONED**, *adj.* } yond forgiveness :  
**UNPARDONING** } not forgiven : not  
 forgiving or placable.

It was thought in him an *unpardonable* offence to  
 alter any thing ; in us as intolerable, that we suffer any  
 thing to remain unaltered. *Hooker.*

The kinder the master, the more *unpardonable* is the  
 traitor. *L'Estrange.*

Luther's conscience turns these reasonings upon him,  
 and infers that Luther must have been *unpardonably*  
 wicked in using masses for fifteen years. *Atterbury.*

Curse ont he *unpardoning* prince, whom terrors can draw  
 To no remorse ; who rules by lion's law. *Dryden.*



How know we that our souls shall not this night be required, laden with those unpardoned sins for which we proposed to repent to-morrow? *Rogers.*

**UNPARLIAMENTARY, adj.** } Contrary to  
**UNPARLIAMENTARINESS, n. s.** } the rules of  
parliament: the noun substantive corresponding.

Sensible he was of that disrespect; reprehending them for the unpardonedness of their remonstrance in print. *Clarendon.*

The secret of all this unprecedented proceeding in their masters they must not impute to their freedom in debate, but to that unpardonedness abuse, of setting individuals upon their shoulders, who were hated by God and man. *Swift.*

**UNPARTED, adj.** Undivided; not separated.

Too little it eludes the dazzled sight,  
Becomes mixed blackness, or unpardoned light. *Prior.*

**UNPARTIAL, adj.** } Equal; honest: the ad-  
**UNPARTIALLY, adv.** } verb corresponding. Not  
in use.

Deem it not impossible for you to err; sift unpardonedly your own hearts, whether it be force of reason, or vehemency of affection, which hath bred these opinions in you. *Hooker.*

Clear evidence of truth, after a serious and unpardoned examination. *Sanderson.*

**UNPASSABLE, adj.** Admitting no passage; not current.

They are vast and unpardoned mountains, which the labour and curiosity of no mortal has ever yet known. *Temple.*

Making a new standard for money, must make all money, which is lighter than that standard, unpardoned. *Locke.*

**UNPASSIONATE, adj.** } Free from passion;  
**UNPASSIONATED, n.** } calm; impartial: the  
**UNPASSIONATELY, adv.** } adverb corresponding.

He attended the king into Scotland, and was sworn a counsellor in that kingdom; where, as I have been instructed by unpardoned men, he did carry himself with singular sweetness. *Wotton.*

Make us unpardonedly to see the light of reason and religion. *King Charles.*

**UNPATHED, adj.** Untracked; unmarked by passage.

A course more promising  
Than a wild dedication of yourselves  
To unpardoned waters, undreamed shores; most certain  
To miseries enough. *Shakespeare.*

**UNPAWNED, adj.** Not given to pledge.  
He rolled his eyes, that witnessed huge dismay,  
Where yet, unpawned, much learned lumber lay. *Pope.*

**UNPAY, v. a.** To undo. A few ludicrous words.

Pay her the debt you owe her, and unpay the villany you have done her: the one you may do with sterling money, and the other with current repentance. *Shakespeare.*

**UNPEACEABLE, adj.** Quarrelsome; inclined to disturb the tranquillity of others.

The design is to restrain men from things which make them miserable to themselves, unpardoned and troublesome to the world. *Tillotson.*

**UNPEG, v. a.** To open any thing closed with a peg.

Unpeg the basket on the house's top;  
Let the birds fly. *Shakespeare. Hamlet.*

**UNPENSIONED, adj.** Not kept in dependence by a pension.

Could-pensioned Boileau lash in honest strai  
Flatterers and bigots, even in Louis' reign;  
And I not strip the gilding off a knave,  
Unplaced, unpensioned, no man's heir or slave? *Pope.*

**UNPEOPLE, v. a.** To depopulate; to deprive of inhabitants.

The land  
In antique times was savage wilderness,  
Unpeopled, unmanured. *Spenser.*

He must be thirty-five years old, a doctor of the faculty, and eminent for his religion and honesty; that his rashness and ignorance may not unpeopled the commonwealth. *Addison.*

**UNPERCEIVED, adj.** } Not observed; not  
**UNPERCEIVEDLY, adv.** } heeded; not sensibly  
discovered: the adverb corresponds.

The ashes, wind unpardoned shakes off. *Bacon.*  
Some oleaginous particles, unpardoned associated themselves to it. *Boyle.*

Thus daily changing by degrees, I'll waste,  
Still quitting ground, by unpardoned decay,  
And steal myself from life, and melt away. *Dryden.*

**UNPERFORMED, adj.** Undone; not done.  
A good law without execution is like an unpardoned promise. *Taylor's Rule of Holy Living.*

**UNPERISHABLE, adj.** Lasting to perpetuity; exempt from decay.

We are secured to reap in another world everlasting, unpardoned felicities. *Hammond.*

**UNPERJURED, adj.** Free from perjury.  
Beware of death; thou canst not die unpardoned,  
And leave an unaccomplished love behind,  
Thy vows are mine. *Dryden.*

**UNPERPLEXED, adj.** Disentangled; not embarrassed.

In learning, little should be proposed to the mind at once; and, that being fully mastered, proceed to the next adjoining part, yet unknown, simple, unpardoned proposition. *Locke.*

**UNPERSPIRABLE, adj.** Not to be admitted through the pores of the skin.

Bile is the most unpardoned of animal fluids. *Arbutnot.*

**UNPERSUADABLE, adj.** Inexorable; not to be persuaded.

He, finding his sister's unpardoned melancholy through the love of Amphialus, had for a time left her court. *Sidney.*

**UNPETRIFIED, adj.** Not turned to stone.  
In many concentered plants, some parts remain unpardoned; that is, the quick and livelier parts remain as wood, and were never yet converted. *Browne.*

**UNPHILOSOPHICAL, adj.** } Unbecoming  
**UNPHILOSOPHICALLY, adv.** } philosophy or a  
**UNPHILOSOPHICALNESS, n. s.** } philosopher:  
**UNPHILOSOPHIZE, v. a.** } the adverb and  
noun substantive corresponding: to unphilosophize is, to degrade from the character of a philosopher. (A bad coinage of Pope's.)

They forget that he is the first cause of all things, and discourse most unpardonedly, absurdly, and unsuitably to the nature of an infinite being, whose influence must set the wheel a-going. *South.*

I could dispense with the unpardonedness of this their hypothesis, were it not unchristian. *Norris.*

It became him who created them to set them in order: and, if he did so, it is unpardoned to seek for any other origin of the world. *Newton.*

Our passions, our interests flow in upon us, and unpardoned us into mere mortals. *Pope.*

**UNPIERCED, adj.** Not penetrated; not pierced.

The unpardoned shade imbrowned the noontide bowers. *Milton.*

True Witney broad-cloth, with its shag unshorn,  
Unpierced is in the lasting tempest worn. *Gay.*

**UNPILLARED, adj.** Deprived of pillars

See the cirque falls! the unpillowed temple nods!  
Streets paved with heroes, Tiber choaked with gods!  
Pope.

**UNPILLOWED**, *adj.* Wanting a pillow.

Perhaps some cold bank is her bolster now,  
Or 'gainst the rugged bark of some broad elm  
Leans her unpillowed head, fraught with sad fears.  
Milton.

**UNPIN**, *v. a.* To open what is shut or fastened with a pin.

Unpin that spangled breast-plate which you wear,  
That the eyes of busy fools may be stopt there.  
Donne.

**UNPINKED**, *adj.* Not marked with eyelet-holes.

Gabriel's pumps were all unpinked i' the heel.  
Shaksp.

**UNPITIED**, *adj.*

} Not compassionate;

**UNPITIFULLY**, *adv.* } not regarded with sympathy

**UNPITYING**, *adj.* } thetic sorrow: unmercifully: having no mercy.

Richard yet lives; but at hand, at hand

Issues his piteous and unpitied end. *Shakespeare.*

He beat him most pitifully.

—Nay, that he did not; he beat him most unpitifully.  
Id.

May he live long scorned, and unpitied fall,  
And want a mourner at his funeral! *Bishop Corbet.*

To shame, to chains, or to a certain grave,  
Lead on, unpitying guides, behold your slave.  
Glanville.

**UNPLACED**, *adj.* Having no place of veneration.

Unplaced, unpensioned. *Pope.*

**UNPLAGUED**, *adj.* Not tormented.

Ladies, that have your feet

Unplagued with corns, we'll have a bout with you.  
Shaksp.

**UNPLANTED**, *adj.* Not planted; spontaneous.

Figs there unplanted through the fields do grow,  
Such as fierce Cato did the Romans show. *Waller.*

**UNPLAUSIBLE**, *adj.* Not plausible; not such as has a fair appearance.

There was a mention of granting five subsidies; and that meeting being, upon very unpopular and unpalatable reasons, immediately dissolved, those five subsidies were exacted, as if an act had passed to that purpose.  
Clarendon.

**UNPLAUSIVE**, *adj.* Not approving.

'Tis like he'll question me,

Why such unplausive eyes are bent on him. *Shaksp.*

**UNPLEASANT**, *adj.* } Not delighting; trou-

**UNPLEASANTLY**, *adv.* } blesome; uneasy: the

**UNPLEASANTNESS**, *n. s.* } adverb and noun substantive corresponding.

O sweet Portia!

Here are a few of the unpleasantest words  
That ever blotted paper. *Shaksp.*

Many people cannot at all endure the air of London, not only for its unpleasantness, but for the suffocations which it causes. *Graunt.*

We cannot boast of good-breeding, and the art of life; but yet we don't live unpleasantly in primitive simplicity and good humour. *Pope.*

**UNPLEASED**, *adj.* } Not pleased; not de-

**UNPLEASING**. } lighted; offensive; disgusting.

Me rather had, my heart might feel your love,  
Than my unpleased eye feel your courtesy. *Shaksp.*

If all those great painters, who have left us such fair platforms, had rigorously observed it in their figures, they had made things more regularly true, but withal very unpleasing. *Dryden's Dufresnoy.*

**UNPLIANT**, *adj.* Not easily bent; not conforming to the will.

The chisel hath more glory than the pencil; that, being so hard an instrument, and working upon so unpliant stuff, can yet leave strokes of so gentle appearance. *Wotton.*

**UNPLOWED**, *adj.* Not plowed.

Good sound land, that hath lain long unplowed. *Mortimer.*

**UNPLUME**, *v. a.* To strip of plumes; to degrade.

In the most ordinary phenomena in nature, we shall find enough to shame confidence, and unplume dogmatizing. *Glanville.*

**UNPOETICAL**, *adj.* } Not such as becomes

**UNPOETIC**. } a poet.

Nor, for an epithet that fails,

Bite off your unpoetical nails,

Unjust! why should you, in such veins,

Reward your fingers for your brains? *B. Corbet.*

**UNPOLISHED**, *adj.* } Fr. *impoli*; Lat. *im-*

**UNPOLITE**. } *politus*. Not elegant;

not refined; not civil: not smoothed; not brightened by attrition.

Finding new words,

Such as of old wise bards employed to make

Unpolished men their wild retreats forsake. *Waller.*

He affirms it to have been the ancient customs of all the Greeks, to set up unpolished stones, instead of images, to the honour of the gods. *Stillingfleet.*

Discourses for the pulpit should be cast into a plain method, and the reasons ranged under the words, first, secondly, and thirdly; however, they may be now fancied to sound unpolite, or unfashionable.

Watts on the Mind.

**UNPOLLUTED**, *adj.* Lat. *impollutus*. Not corrupted; not defiled.

Lay her i' the earth;

And from her fair and unpolluted flesh

May violets spring. *Shaksp. Hamlet.*

Though unpolluted yet with actual ill,

She half commits, who sins but in her will. *Dryden.*

**UNPOPULAR**, *adj.* Not fitted to please the people.

The practises of these men, under the covert of feigned zeal, made the appearance of sincere devotion ridiculous and unpopular. *Addison's Freeholder.*

**UNPORTABLE**, *adj.* Un and portable. Not to be carried.

Had their cables of iron chains had any great length, they had been unportable; and, being short, the ships must have sunk at an anchor in any stream of weather or counter tide. *Raleigh.*

**UNPOSSESS'ED**, *adj.* Not had; not held; not enjoyed.

Thou unpossessing bastard, dost thou think

That I would stand against thee? *Shaksp.*

The cruel something unpossessed

Corrodes and leavens all the rest. *Prior.*

**UNPRACTICABLE**, *adj.* Not feasible.

I tried such of the things that came into my thoughts as were not in that place and time unpracticable. *Boyle.*

**UNPRACTISED**, *adj.* Not skilful by use and experience; raw; being in the state of a novice.

The full sum of me

Is an unlessoned girl, unschooled, unpractised. *Shaksp.*

Unpractised, unprepared, and still to seek. *Milton.*

**UNPRAISED**, *adj.* Not celebrated; not praised.

If the young African for fame  
His wasted country freed from Punick rage,



The deed becomes *unpraised*, the man at least,  
And loses, though but verbal, his reward. *Milton.*  
Nor pass *unpraised* the vest and veil divine,  
Which wandering foliage and rich flowers entwine.

*Dryden.*

**UNPRECA'RIOUS, adj.** Not dependant on another.

The stars which grace the high expansion bright,  
By their own beams, and *unprecarious* light,  
At a vast distance from each other lie. *Blackmore.*

**UNPRECEDENTED, adj.** Not justifiable by any example.

The secret of all this *unprecedented* proceeding in their masters, they must not impute to freedom. *Swift.*

**UNPREDICT', v. a.** To retract prediction.

Means I must use, thou say'st prediction else  
Will *unpredict*, and fail me of the throne. *Milton.*

**UNPREFERRED, adj.** Not advanced.

To make a scholar, keep him under while he is young,  
or *unpreferred*. *Collier on Pride.*

**UNPREG'NANT, adj.** Not prolific; not quick of wit.

This deed unshapes me quite, makes me *unpregnant*,  
And dull to all proceedings. *Shaksp.*

**UNPREJUDICATE, adj.** Not prepossessed or any settled notions.

A pure mind in a chaste body is the mother of wisdom, sincere principles, and *unprejudicate* understanding. *Taylor.*

**UNPREJUDICED, adj.** Free from prejudice, or prepossession.

The meaning of them may be so plain, as that any *unprejudiced* and reasonable man may certainly understand them. *Tillotson.*

**UNPRELA'TICAL, adj.** Unsuitable to a prelate.

The archbishop of York, by such *unprelatical* ignominious arguments, in plain terms advised him to pass that act. *Clarendon.*

**UNPREMEDITATED, adj.** Not prepared in the mind before-hand.

The slow of speech make *unpremeditated* harangues, or converse readily in languages that they are but little acquainted with. *Addison.*

**UNPREPARED', adj.** } Not fitted by pre-

**UNPREPAREDNESS, n. s.** } vious measures: the noun substantive corresponds.

I believe my innocence, and *unpreparedness* to assert my rights and honour, make me the most guilty in their esteem, who would not so easily have declared a war against me if I had first assaulted them.

*King Charles.*

To come *unprepared* before him is an argument that we do not esteem God. *Duypa's Rules for Devotion.*

Fields are full of eyes and woods have ears;  
For this the wise are ever on their guard,  
For unforeseen, they say, is *unprepared*. *Dryden.*

**UNPREPOSSESSED', adj.** Not prepossessed; not preoccupied by notions.

The *unprepossessed* on the one hand, and the well-disposed on the other, are affected with a due fear of these things. *South.*

It finds the mind naked, and *unprepossessed* with any former notions, and so easily and insensibly gains upon the assent. *Id.*

**UNPRESSED', adj.** Not pressed; not forced.

Have I my pillow left *unpressed* in Rome? *Shaksp.*  
They left not any error in government unmentioned,  
or *unpressed* with the sharpest and most pathetic expressions. *Clarendon.*

**UNPRETENDING, adj.** Not claiming any distinctions.

Bad writers are not ridiculed, because ridicule ought to be a pleasure, but to undeceive and vindicate the honest and *unpretending* part of mankind from imposition. *Pope.*

**UNPREVAILING, adj.** Being of no force.  
Throw to earth this *unprevailing* woe. *Shaksp. Hamlet.*

**UNPREVENTED, adj.** Not previously hindered or preceded.

A pack of sorrows, which would press you down,  
If *unprevented*, to your timeless grave. *Shaksp.*

*Thy grace*

Comes *unprevented*, unexplored, unsought. *Milton.*

**UNPRINCE'LY, adj.** Unsuitable to a prince.

I could not have given my enemies greater advantages, than by so *unprinceally* an inconstancy. *King Charles.*

**UNPRIN'CIPIED, adj.** Not settled in tenets or opinions; wicked.

Others betake them to state affairs, with souls so *unprincipled* in virtue and true generous breeding, that flattery and court shifts, and tyrannous aphorisms, appear to them the highest points of wisdom. *Milton on Education.*

**UNPRINTED, adj.** Not printed.

Defer it, till you have finished these that are yet *unprinted*. *Pope.*

**UNPRISABLE, adj.** Not valued; not of estimation.

A haubling vessel was he captain of,  
For shallow draught and bulk *unprisable*. *Shaksp.*

**UNPRISONED, adj.** Set free from confinement.

Several desires led parts away,  
Water declined with earth, the air did stay;  
Fire rose, and each from other but untied,  
Themselves *unprisoned* were and purified. *Donne.*

**UNPRIZED', adj.** Not valued.

Not all the dukes of waterish Burgundy  
Can buy this *unprized*, precious maid of me. *Shaksp.*

**UNPROCLAIMED', adj.** Not notified by a public declaration.

The Syrian king, who to surprize  
One man, assassin-like had levied war,  
War *unproclaimed*. *Milton's Paradise Lost.*

**UNPROFANED', adj.** Not violated.

Unspoiled shall be her arms, and *unprofaned*  
Her holy limbs with any human hand;  
And in a marble tomb laid in her native land. *Dryden.*

**UNPROFITABLE, adj.** } Useless; serving

**UNPROFITABLY, adv.** } no purpose: the ad-

**UNPROFITABLENESS, n. s.** } verb and noun substantive corresponding.

Should he reason with *unprofitable* talk? *Job xv. 3.*

I should not now *unprofitably* spend

Myself in words, or catch at empty hope,

By airy ways for solid certainties. *Ben Jonson.*

It is better to fall honourably, than to survive in an

*unprofitable* and unglorious life. *L'Estrange.*

We are so persuaded of the *unprofitableness* of your science, that you can but leave us where you find us; but, if you succeed, you increase the number of your party. *Addison.*

**UNPROFITTED, adj.** Having no gain.

Be clamorous, and leap all civil bounds,

Rather than make *unprofitted* return. *Shakspere.*

**UNPROLIF'IC, adj.** Barren; not productive.

Great rains drown many insects, and render their

eggs *unprolific*, or destroy them. *Hale.*

**UNPROM'ISING, adj.** Giving no promise of

excellence; having no appearance of value.

If he be naturally listless and dreaming, this *unpromising* disposition is none of the easiest to be dealt with. *Locke.*

**UNPRONOUNCED**, *adj.* Not uttered; not spoken.

Mad'st imperfect words, with childish trips,  
*Unpronounced*, slide through my infant lips. *Milton.*

**UNPROFITIOUS**, *adj.* Not favorable; inauspicious.

'Twas when the dog-star's *unprofitious* ray  
Smote ev'ry brain, and withered ev'ry bay,  
Sick was the sun. *Pope.*

**UNPROPORTIONED**, *adj.* Not suited to something else.

Give thy thoughts no tongue,  
Nor any *unproportioned* thought his act. *Shakspeare.*

**UNPROPOSED**, *adj.* Not proposed.

The means are *unproposed*. *Dryden.*

**UNPROPPED**, *adj.* Not supported; not upheld.

He lives at random, carelessly diffused,  
With languished head *unpropped*, as one past hope,  
Abandoned, and by himself given over. *Milton's Agonistes.*

**UNPROSPEROUS**, *adj.* } Latin *improsper*.

**UNPROSPEROUSLY**, *adv.* } Unfortunate; not prosperous: the adverb corresponding.

When a prince fights justly, and yet *unprosperously*,  
if he could see all those reasons for which God hath so ordered it, he would think it the most reasonable thing in the world. *Taylor.*

The winter had been very *unprosperous* and unsuccessful to the king. *Clarendon.*

**UNPROTECTED**, *adj.* Not protected; not supported; not defended.

By woeful experience, they both did learn, that to forsake the true God of heaven, is to fall into all such evils upon the face of the earth, as men, either destitute of grace divine may commit, or, *unprotected* from above, endure. *Hooker.*

**UNPROVED**, *adj.* Not tried; not known by trial, or by argument.

There I found a fresh *unproved* knight,  
Whose manly hands imbrued in guilty blood  
Had never been. *Faerig Queene.*

There is much of what should be demonstrated left *unproved* by those chymical experiments. *Boyle.*

**UNPROVIDE**, *v. a.* To divest of resolution or qualifications; to unfurnish.

I'll not expostulate with her, lest  
Her beauty *unprovide* my mind again. *Shakspeare.*

Tears, for a stroke foreseen, afford relief:

But, *unprovided* for a sudden blow,  
Like Niobe we marble grow,  
And petrify with grief. *Dryden.*

**UNPROVOKED**, *adj.* } Not provoked: in-

**UNPROVOKING**. } offensive.

The tooting earth, yet guiltless of the plough,  
And *unprovoked* did fruitful stores allow. *Dryden.*

Let them forbear all open and secret methods of encouraging a rebellion so destructive, and so *unprovoked*. *Addison.*

I stabbed him a stranger, *unprovoking*, inoffensive. *Fleetwood.*

**UNPRUNED**, *adj.* Not cut; not lopped.

The whole land is full of woods;  
Her fruit-trees all *unpruned*. *Shakspeare.*

**UNPUBLIC**, *adj.* Private; not generally known, or seen.

Virgins must be retired and *unpublic*: for all freedom of society is a violence done to virginity, not in its natural, but in its moral capacity; that is, it loses part of its severity and strictness, by publishing that person, whose work is religion, whose thoughts must dwell in heaven. *Taylor.*

**UNPUBLISHED**, *adj.* Secret; unknown.  
Apply your care wholly to those which are *unpublished*. *Pope.*

**UNPUNISHED**, *adj.* Fr. *impuni*. Not punished; suffered to continue in impunity.

Divine justice will not let oppression go *unpunished*. *L'Estrange.*

**UNPURCHASED**, *adj.* Unbought.

*Unpurchased* plenty our full tables loads,  
And part of what they lent return to our gods. *Denham.*

**UNPURGED**, *adj.* Not purged; unpurified.

In her visage round those spots, *unpurged*,  
Vapours not yet into her substance turned. *Milton.*

**UNPURIFIED**, *adj.* Not freed from recreation; not cleansed from sin.

Our sinful nation, having been long in the furnace,  
is now come out, but *unpurified*. *Decay of Piety.*

**UNPURPOSED**, *adj.* Not designed; not intentional.

Do it,  
Or thy precedent services are all  
But accidents *unpurposed*. *Shakspeare.*

**UNPURSUED**, *adj.* Not pursued.

All night the dreadful angel *unpursued*  
Through heaven's wide champain held his way. *Milton.*

**UNPUTRIFIED**, *adj.* Not corrupted by rotteness.

Meat and drink last longer *unputrified*, or unsoured,  
in winter than in summer. *Bacon.*

No animal *unputrified*, being burnt, yields any alkaline salt; but putrified yields a volatile alkali. *Arbuthnot.*

**UNQUALIFIED**, *adj.* } Not fit: to disqua-

**UNQUALIFY**, *v. a.* } lify.

Till he has denuded himself of all these incumbences, he is utterly *unqualified* for these agonies. *Decay of Piety.*

Arbitrary power so diminishes the basis of the female figure, as to *unqualify* a woman for an evening walk. *Addison.*

Deafness *unqualifies* me for all company. *Swift.*

**UNQUALIFIABLE**, *adj.* Such as cannot be impugned.

There arise unto the examination such satisfactory and *unqualifiable* reasons as may confirm the causes generally received. *Brown's Vulgar Errors.*

**UNQUEEN**, *v. a.* To divest of the dignity of queen.

Embalm me,  
Then lay me forth; although *unqueened*, yet like  
A queen, and daughter to a king, inter me. *Shakspeare.*

**UNQUENCHABLE**, *adj.* } Unextinguish-

**UNQUENCHABLENESS**, *n. s.* } able: unextin-

**UNQUENCHED**, *adj.* } guishableness: un-

extinguished.

We represent wildfires burning in water and *unquenchable*. *Bacon.*

We have heats of dungs, and of lime *unquenched*. *Id.*

I was amazed to see the *unquenchableness* of this fire. *Hickwill.*

Our love of God, our *unquenchable* desires to promote our well-grounded hopes to enjoy his glory, should take the chief place in our zeal. *Sprat.*

**UNQUESTIONED**, *adj.* } Not doubted; pass-

**UNQUESTIONABLE**, } ed without doubt:

**UNQUESTIONABLY**, *adv.* } not to be question-

ed: the adverb corresponding.

What were his marks?  
—A lean cheek, which you have not: an *unques-*  
*onable* spirit, which you have not. *Shakspeare*



The duke's carriage was surely noble throughout ; of unquestionable courage in himself, and rather fearful of fame than danger. *Wotton.*

It did not please the gods, who instruct the people ; and their unquestioned pleasures must be served. *Ben Jonson.*

She muttering prayers, as holy rites she meant, Through the divided crowd unquestioned went. *Dryden.*

If the fathers were unquestionably of the household of faith, and all to do good to them ; then certainly their children cannot be strangers in this household. *Spratt.*

UNQUICK', *adj.* } Motionless ; not alive ; not

UNQUICK'ENED. } animated.

His senses droop, his steady eyes unquick ; And much he ails, and yet he is not sick. *Daniel.*

Every focus bears a secret hoard, With sleeping, unexpanded issue stored ; Which numerous, but unquickened progeny Clapsed and enwrapped within each other lie. *Blackmore.*

UNQUIET, *adj.* } Fr. *inquiet* ; Latin, in-

UNQUIETLY, *adv.* } quietly. Moved with per-

UNQUIETNESS, *n. s.* } petual agitation ; not

calm ; not still : the derivatives corresponding. From grammatick flats and shallows they are on the sudden transported to be tossed and turmoiled with the unballasted wits, in fathomless and unquiet depths of controversy. *Milton.*

Who's there besides foul weather ? —One minded like the weather, most Unquietly. *Shakespeare.*

Thou, like a violent noise, cam'st rushing in, And mak'st them wake and start to new unquietness. *Denham.*

UNRACK'ED, *adj.* Not poured from the lees. Rack the one vessel from the lees, and pour the lees of the racked vessel into the unracked vessel. *Bacon.*

UNRAK'ED, *adj.* Not thrown together and covered. Used only of fires.

Cricket, to Windsor chimnies shalt thou leap : Where fires thou find'st unraked, and hearths unswept, There pinch the maids. *Shakespeare. Merry Wives.*

UNRANSACKED, *adj.* Not pillaged.

He gave that rich city for a prey unto his soldiers, who left neither house nor corner thereof unransacked. *Knolles.*

UNRAN'SOMED, *adj.* Not set free by payment for liberty.

Unransomed here receive the spotless fair, Accept the hecatomb the Greeks prepare. *Pope's Iliad.*

UNRAV'EL, *v. a.* To disentangle ; extricate ; clear. He has unravelled the studied cheats of great artificers. *Fell.*

There unravel all This dark design, this mystery of fate. *Addison.*

UNRAZORED, *adj.* Unshaven.

As smooth as Hebe's their unrazor'd lips. *Milton.*

UNREACH'ED, *adj.* Not attained.

Labour with unequal force to climb That lofty hill, unreached by former time. *Dryden.*

UNREAD, *adj.* Not read ; not publicly pronounced : unlearned.

These books are safer and better to be left publicly unread. *Hooker.*

Uncertain whose the narrower span, The clown unread, or half-read gentleman. *Dryden.*

UNREADY, *adj.* } Not prepared ; not fit :

UNREAD'INESS, *n. s.* } the noun substantive corresponding.

This im preparation and unreadiness when they find in us, they turn it to the soothing up of themselves in that accursed fancy. *Hooker.*

How now, my lords ! what all unready so ?

*Shakespeare.*

UNREAL, *adj.* Unsubstantial ; having only appearance.

Hence terrible shadow !

Unreal mock'ry, hence ! *Shakespeare. Macbeth.*

I with pain

Voyaged the unreal vast unbounded deep Of horrible confusion. *Milton's Paradise Lost.*

UNREASONABLE, *adj.* } Exorbitant ; claim-

UNREASONABLENESS, *n. s.* } ing or insisting on more than is fit : the noun substantive corresponding. No reason known to us ; but that there is no reason thereof, I judge most unreasonable to imagine. *Hooker.*

The unreasonableness of their propositions is not more evident, than that they are not the joint desires of the major number. *King Charles.*

It is unreasonable for men to be judges in their own cases ; self-love will make men partial to themselves and their friends. *Locke.*

She entertained many unreasonable prejudices against him, before she was acquainted with his personal worth. *Addison.*

UNREAVE', *v. a.* Now unravel ; from un, and reave, or ravel. To unwind ; to disentangle.

Penelope, for her Ulysses' sake, Devised a web her woovers to deceive ; In which the work that she all day did make,

The same at night she did unreave. *Spenser.*

UNREBATED, *adj.* Not blunted.

A number of fencers try it out with unrebated swords. *Hakewill.*

UNREBUK'ABLE, *adj.* Obnoxious to no censure.

Keep this commandment without spot, unrebukable, until the appearing of Christ. *1 Tim. vi. 14.*

UNRECEIV'ED, *adj.* Not received.

Where the signs and sacraments of his grace are not, through contempt, unreceived, or received with contempt, they really give what they promise, and are what they signify. *the her.*

UNRECLAIM'ED, *adj.* Not tamed.

A savageness of unreclaimed blood, Of general assault. *Shakespeare. Hamlet.*

This is the most favourable treatment a sinner can hope for, who continues unreclaimed by the goodness of God. *Rogers.*

UNRECONCILED, *adj.* } Not reconciled :

UNRECONCILE'ABLE. } not to be reconciled.

Let me lament,

That our stars, unreconcilable, should have divided Our equality to this. *Shakespeare.*

He had many infirmities and sins, unreconcilable with perfect righteousness. *Hammond.*

UNRECORDED, *adj.* Not kept in remembrance by public monuments.

Unrecorded left through many an age,

Worthy t' have not remained so long unsung. *Milton.*

The great Antileus ! a name

Not unrecorded in the rolls of fame. *Pope's Odyssey.*

UNRECOUNTED, *adj.* Not told ; not related.

This is yet but young, and may be left

To some years unrecounted. *Shakespeare.*

UNRECRUITABLE, *adj.* Incapable of repairing the deficiencies of an army.

Empty and unrecrutable colonels of twenty men in a company. *Milton on Education.*

UNRECURING, *adj.* Irremediable.

I found her straying in the park, Seeking to hide herself ; as doth the deer, That hath received some unrecuring wound. *Shakesp.*

**UNREDUCED**, *adj.* Not reduced.

The earl divided all the rest of the Irish countries, *unreduced*, into shires. *Davies's Ireland.*

**UNREFORMED**, *adj.* } Not amended; not  
**UNREFORMABLE**. } corrected: not to be  
altered or corrected.

This general revolt, when overcome, produced a general reformation of the Irishry, which ever before had been *unreformed*. *Davies's Ireland.*

The rule of faith is alone unmoveable and *unreformable*. *Hammond's Fundamentals.*

**UNREFRACTED**, *adj.* Not refracted.

The sun's circular image is made by an *unrefracted* beam of light. *Newton's Optics.*

**UNREFRESHED**, *adj.* Not cheered; not relieved.

Its symptoms are a spontaneous lassitude, being *unrefreshed* by sleep. *Arbuthnot.*

**UNREGARDED**, *adj.* Not heeded; not respected; neglected.

We ever by his might  
Had thrown to ground the *unregarded* right. *Spenser.*

Dost see, how *unregarded* now  
That piece of beauty passes?

There was a time when I did vow  
To that alone; but mark the fate of faces. *Suckling.*

**UNREGENERATE**, *adj.* Not brought to a new life.

This is not to be understood promiscuously of all men, *unregenerate* persons as well as regenerate. *Stephens.*

**UNRE'GISTERED**, *adj.* Not recorded.

Hotter hours,  
*Unregistered* in vulgar fame, you have  
Luxuriously picked out. *Shakespeare.*

**UNREIN'ED**, *adj.* Not restrained by the bridle.

Lest from my flying steed *unrein'd*, as once  
Bellerophon, though from a lower clime  
Dismounted, on the Aleian field I fall. *Milton.*

**UNRELENTING**, *adj.* Hard; cruel; feeling no pity.

These are the realms of *unrelenting* fate;  
And awful Rhadamanthus rules the state. *Dryden.*

**UNRELIEV'ED**, *adj.* } Not succored: not  
**UNRELIEVABLE**. } to be relieved.

The uneasiness of *unrelieved* thirst is not lessened by continuance, but grows the more unsupportable. *Boyle.*

As no degree of distress is *unrelievable* by his power, no extremity of it is inconsistent with his compassion. *Id.*

**UNREMARK'ABLE**, *adj.* Not capable of being observed.

Our understanding, to make a complete notion, must add something else to this fleeting and *unremarkable* superficies, that may bring it to our acquaintance. *Digby.*

**UNREME'DIABLE**, *adj.* Admitting no remedy.

He so handled it, that it rather seemed he had more come into a defence of an *unremediabls* mischief already committed, than that they had done it at first by his consent. *Sidney.*

**UNREMEMBERED**, *adj.* } Not retained in  
**UNREMEMBERING**, } the mind: not re-  
**UNREMEMBRANCE**, *n. s.* } membering: forgetfulness.

I cannot pass *unremembered* their manner of disguising the shafts of chimneys in various fashions, whereof the noblest is the pyramidal. *Wotton.*

That, *unremembering* of its former pain,  
The soul may suffer mortal flesh again. *Dryden.*

Some words are negative in their original language, but seem positive, because the negation is unknown; as amnesty, an unremembrance, or general pardon. *Watts's Logick.*

**UNREMOVED**, *adj.* } Not taken away; not  
**UNREMOVABLE**, } to be removed: the ad-  
**UNREMOVABLY**, *adv.* } verb corresponding.

His discontents are *unremoveably* coupled to his nature. *Shakespeare.*

It is impossible, where this opinion is imbibed and *unremoved*, to found any convincing argument. *Hammond.*

**UNREPAID**, *adj.* Not recompensed; not compensated.

Hadst thou full power  
To measure out his torments by thy will;  
Yet what couldst thou, tormentor, hope to gain;  
Thy loss continues, *unrepaid* by pain. *Dryden.*

**UNREPEAL'D**, *adj.* Not revoked; not abrogated.

When you are pinched with any *unrepealed* act of parliament, you declare you will not be obliged by it. *Dryden.*

**UNREPENT'ED**, *adj.* } Not expiated by pen-  
**UNREPENT'ING**, } nital sorrow: not  
**UNREPENT'ANT**. } penitent or repenting.

They are no fit supplicants to seek his mercy, in the behalf of others, whose own *unrepented* sins provoked his just indignation. *Hooker.*

My unprepared and *unrepenting* breath  
Was snatched away by the swift hand of death. *Roscommon.*

**UNREPINING**, *adj.* Not peevishly complaining.

Barefoot as she trod the flinty pavement,  
Her footsteps all along were marked with blood;  
Yet silent on she passed, and *unrepining*. *Rove.*

**UNREPLEN'ISHED**, *adj.* Not filled.

Some air retreated thither; kept the mercury out of the *unreplenished* space. *Boyle.*

**UNREPRIEV'ABLE**, *adj.* Not to be respited from penal death.

Within me is a hell; and there the poison  
Is, as a fiend, confined, to tyrannise  
In *unreprieable* condemned blood. *Shakespeare.*

**UNREPROACH'ED**, *adj.* Not upbraided; not censured.

Sir John Hotham, *unreproached*, uncursed by any imprecation of mine, pays his head. *King Charles.*

**UNREPROV'ED**, *adj.* } Not censured: not  
**UNREPROVABLE**. } to be censured.

You hath he reconciled, to present you holy, unblameable, and *unreprovable* in his sight. *Coloss. i. 22.*  
Christians have their churches, and *unreproved* exercise of religion. *Sandys.*

**UNREPUG'NANT**, *adj.* Not opposite.

When Scripture doth yield us natural laws, what particular order is thereunto most agreeable; when positive, which way to make laws *unrepugnant* unto them. *Hooker.*

**UNREP'UTABLE**, *adj.* Not creditable.

When we see wise men examples of duty, we are convinced that piety is no *unreputable* qualification, and that we are not to be ashamed of our virtue. *Rogers.*

**UNREQUEST'ED**, *adj.* Not asked.

With what security can our ambassadors go, *unrequested* of the Turkish emperor, without his safe conduct? *Knollas.*

**UNREQUITABLE**, *adj.* Not to be retaliated or repaid.

So *unrequitable* is God's love, and so insolvent are we, that that love vastly improves the benefit, by which alone we might have pretended to some ability of retribution. *Boyle.*



**UNRESENT'ED**, *adj.* Not regarded with anger.

The failings of these holy persons passed not *unresented* by God; and the same Scripture which informs us of the sin, records the punishment. *Rogers.*

**UNRESERVED**, *adj.* } Not reserved; not

**UNRESERV'EDLY**, *adv.* } limited by any private

**UNRESERV'EDNESS**, *n. s.* } convenience: the adverb and noun substantive correspond.

I am not to embrace absolutely and *unreservedly* the opinion of Aristotle. *Boule.*

The piety our heavenly Father will accept must consist in an entire *unreserved* obedience to his commands. *Rogers.*

**UNRESIST'ED**, *adj.* } Not opposed: not dis-

**UNRESIST'ING**, } posed to resist.

Those gods, whose *unresisted* might Hath sent me to these regions void of light. *Dryden.*

The sheep was sacrificed on no pretence, But meek and *unresisting* innocence: A patient useful creature. *Id.*

**UNRESOLVED**, *adj.* } Not determined; hav-

**UNRESOLV'ING**, } ing made no resolution:

sometimes with *of*.

On the western coast Rideth a puissant navy: to our shores Throng many doubtful, hollow-hearted friends,

Unarmed, and *unresolved* to beat them back. *Shaksp.*

Turnus, *unresolved* of flight, Moves tardy back, and just recedes from fight. *Dryd.*

She her arms about her *unresolving* husband threw. *Id.*

**UNRESPECT'IVE**, *adj.* Inattentive; taking little notice.

I will converse with iron-witted fools, And *unrespective* boys; none are for me That look into me with considerate eyes. *Shaksp.*

**UNRESTORED**, *adj.* Not restored; not cleared from an attainder.

The son of an *unrestored* traitor has no pretence to the quality of his ancestors. *Collier.*

**UNRESTRAIN'ED**, *adj.* Not confined; not hindered.

The taverns he daily doth frequent, With *unrestrained*, loose companions. *Shaksp.*

**UNRETRACT'ED**, *adj.* Not revoked; not recalled.

Nothing but plain malevolence can justify disunion; malevolence shewn in a single outward act, *unretracted*, or in habitual ill-nature. *Collier.*

**UNREVEALED**, *adj.* Not told; not discovered.

Dear, fatal name! rest ever *unrevealed*; Nor pass these lips, in holy silence sealed. *Pope.*

**UNREVENGED**, *adj.* Not revenged.

So might we die, not envying them that live; So would we die, not *unrevenged* all. *Fairfax.*

Great Pompey's shade complains that we are slow, And Scipio's ghost walks *unrevenged* amongst us. *Addison.*

**UNREVERSED**, *adj.* Not revoked; not repealed.

She hath offered to the doom, Which *unreversed* stands in effectual force, A sea of melting tears. *Shaksp.*

**UNREVOK'ED**, *adj.* Not recalled.

Hear my decree, which *unrevoked* shall stand. *Milt.*

**UNREWARD'ED**, *adj.* Not rewarded; not recompensed.

Providence takes care that good offices may not pass *unrewarded*. *L'Estrange.*

**UNRID'DLE**, *v. a.* To solve an enigma; explain a problem.

A reverse often clears up the passage of an old poet, as the poet often serves to *unriddle* the reverse. *Addis.*

**UNRIG'**, *v. a.* To strip of tackle.

Rhodes is the sovereign of the sea no more; Their ships *unrigged*, and spent their naval store. *Dryden.*

**UNRIGHT'EOUS**, *adj.* } Urjust; wicked;

**UNRIGHT'EOUSLY**, *adv.* } sinful; bad: the de-

**UNRIGHT'EOUSNESS**, *n. s.* } rivatives correspond.

Let the wicked man forsake his way, and the *unrighteous* man his thoughts, and let him return unto the Lord. *Isaiah lv.*

Within a month!

Ere yet the salt of most *unrighteous* tears

Had left the flushing in her galled eyes, She married—Oh most wicked speed! *Shaksp.*

All *unrighteousness*, says he, is sin, but every transgression of the law is *unrighteousness*, saith Austin upon this place. *Hall.*

**UNRIGHT'FUL**, *adj.* Not rightful; not just.

Thou, which knowest the way • To plant *unrightful* kings, wilt now again To pluck him headlong from the usurped throne. *Shaksp.*

**UNRING'**, *v. a.* To deprive of a ring.

Be forced to impeach a broken hedge, And pigs *unringed* at vis. franc. pledge. *Hudibras.*

**UNRIP'**, *v. a.* This word is improper, there being no difference between rip and unrip, and the negative particle is therefore of no force; yet it is well authorised. To cut open.

He could not now, with his honour, so *unrip*, and put a lye upon all that he had said and done before, as to deliver him up. *Bacon's Henry VII.*

We are angry with searchers when they break open trunks, and *unrip* packs, and open sealed letters. *Taylor.*

**UNRI'PE**, *adj.* } Immature; not fully con-

**UNRI'PENED**, } cocted; not ripened: state

**UNRI'PENESS**, *n. s.* } of being unripe.

Who hath not heard of the valiant, wise, and just Dorilaus, whose *unripe* death doth yet, so many years since, draw tears from virtuous eyes? *Sidney.*

In this northern tract, our hoarser throats Utter *unripe* and ill-constrained notes. *Waller.*

Were you with these, you'd soon forget The pale, *unripened* beauties of the north. *Addison.*

**UNRIVALL'ED**, *adj.* Having no competitor.

Honour forbid! at whose *unrivalled* shrine Ease, pleasure, virtue, all our sex resign. *Pope.*

**UNROL'**, *v. a.* To open what is rolled or con-

volved. Time has *unrolled* her glories to the last, And now closed up the volume. *Dryden.*

**UNROMANTIC**, *adj.* Contrary to romance.

It is a base *unromantic* spirit not to wait on you. *Swift.*

**UNROOF'**, *v. d.* To strip off the roof or covering of houses.

The rabble should have first *unroofed* the city, Ere so prevailed with me. *Shaksp.*

**UNROOST'ED**, *adj.* Driven from the roost.

Thou dotard! thou art woman-tired, *unroosted*, By thy old dame Partlet here. *Shaksp.*

**UNROOT'**, *v. a.* To tear from the roots; extirpate; eradicate.

*Unroot* the forest oaks, and bear away Flocks, folds, and trees, an undistinguished prey. *Dryden.*

**UNROUND'ED**, *adj.* Not shaped; not cut to a round.

Those unfil'd pistols, That more than cannon-shot avails or lets; Which, negligently left *unrounded*, look Like many-angled figures in the book Of some dread conjurer. *Donne.*

UNROYAL, *adj.* Unprincely; not royal.

By the advice of his envious counsellors, he sent them with *unroyal* reproaches to Musidorus and Pyrocles, as if they had done traiterously. *Sidney.*

UNRUFFLE, *v. n.* } To cease from commo-  
UNRUFFLED, *adj.* } tion or agitation: calm; tranquil.

Where'er he guides his finny coursers,  
The waves *unruffle*, and the sea subsides. *Dryden.*  
Vent all thy passion, and I'll stand its shock  
Calm and *unruffled* as a summer's sea,  
When not a breath of wind flies o'er its surface.

*Addison.*

UNRULED, *adj.* } Not directed by any su-  
UNRULINESS, *n. s.* } perior power: ungovernable:  
UNRULY, *adj.* } ble: state of being un-  
governable.

The tongue is an *unruly* evil, full of deadly poison.

*James iii.*

The realm was left, like a ship in a storm, amidst all the raging surges, *unruled* and undirected of any.

*Spenser.*

By the negligence of some who were hardly to be commanded, and by the *unruliness* of others who without leave were gone ashore, so fair an occasion of victory was neglected.

*Knolles.*

UNSAFE, *adj.* } Not secure; hazardous:  
UNSAFELY, *adv.* } dangerous: the adverb corresponding.

If they would not be drawn to seem his adversaries, yet others should be taught how *unsafe* it was to continue his friends.

*Hooker.*

As no man can walk, so neither can he think, uneasily or *unsafely*, but in using, as his legs, so his thoughts, amiss; which a virtuous man never doth.

*Grew.*

UNSAID, *adj.* Not uttered; not mentioned.  
Chanticleer shall wish his words *unsaid*.

*Dryden.*

UNSALTED, *adj.* Not pickled or seasoned with salt.

The muriatick scurvy, induced by too great quantity of sea-salt, and common among mariners, is cured by a diet of fresh *unsalted* things, and watery liquors acidulated.

*Arbuthnot.*

UNSALUTED, *adj.* Lat. *insalutatus*. Not saluted.

Gods! I prate;  
And the most noble mother of the world  
Leave *unsaluted*.

*Shakspeare.*

UNSATIATED, *adj.* Unholy; not consecrated; not pious.

Her obsequies have been so far enlarged  
As we have warranty; her death was doubtful;  
And, but that great command o'ersways the order,  
She should in ground *unsanctified* have lodged  
Till the last trumpet.

*Shakspeare.*

UNSATIABLE, *adj.* Lat. *insatiabilis*. Not to be satisfied; greedy without bounds.

*Unsatisfiable* in their longing to do all manner of good to all the creatures of God, but especially men.

*Hooker.*

UNSATISFACTORY, *adj.* } Not giving sa-  
UNSATISFACTORYNESS, *n. s.* } tisfaction: not clearing the difficulty: the noun substantive corresponding.

That which most deters me from such trials is their *unsatisfactoriness*, though they should succeed.

*Boyle.*

Latria to the cross, is point blank against the definition of the council of Nice; and it is an *unsatisfactory* answer to say, they only were against Latria given to images for themselves.

*Stillingfleet.*

UNSATISFIED, *adj.* } Not contented; not  
UNSATISFIEDNESS, *n. s.* } pleased: state of being  
UNSATISFYING, *adj.* } not pleased: not contenting.

Though he were *unsatisfied* in getting,  
Yet in bestowing he was most princely. *Shakspeare.*

Between my own *unsatisfiedness* in conscience and a necessity of satisfying the importunities of some, I was persuaded to choose rather what was safe, than what seemed just.

*King Charles.*

Nor is fame only *unsatisfying* in itself, but the desire of it lays us open to many accidental troubles. *Addison.*

UNSAVORY, *adj.* } Tasteless; insipid;  
UNSAVORINESS, *n. s.* } having a bad taste: tastelessness; vileness of taste.

Can that which is *unsavoury* be eaten without salt? or is there any taste in the white of an egg? *Job vi. 6.*

*Unsavoury* news; but how made he escape? *Shakspeare.*

If we concede a national *unsavouriness* in any people, yet shall we find the Jews less subject hereto than any.

*Browne.*

UNSAY, *v. a.* To retract; recant.

Call you me fair? that fair again *unsay*;

\*Demetrius loves you, fair. *Shakspeare.*

Say and *unsay*, feign, flatter, or abjure. *Milton.*

UNSCALY, *adj.* Having no scales.

*Gay.*

The jointed lobster, and *unscaley* sole.

UNSCAR'ED, *adj.* Not marked with wounds.

And must she die for this? O let her live:

So she may live *unscarred* from bleeding slaughter,

I will confess she was not Edward's daughter. *Shakspeare.*

UNSCHOLASTIC, *adj.* } Not bred to litera-  
UNSCHOOLE'D, } ture or in the schools.

When the apostles were ordained to alter the laws of heathenish religion, they were, St. Paul excepted, *unschooled* and unlettered men.

*Hooker.*

Notwithstanding these learned disputants, it was to the *unscholastick* statesmen that the world owed their peace and liberties.

*Locke.*

UNSCORCHED, *adj.* Not touched by fire.

His hand,

Not sensible of fire, remained *unscorched*. *Shakspeare.*

UNSCOURED, *adj.* Not cleaned by rubbing.

The' enrolled penalties,  
Which have, like *unscoured* armour, hung by the' wall,  
And none of them been worn.

*Shakspeare*

UNSCRATCHED, *adj.* Not torn.

I with much expedient march

Have brought a counter-check before your gates,  
To save *unscratched* your city's threatened cheeks.

*Shakspeare.*

UNSCREENED, *adj.* Not covered; not protected.

Those balls of burnished brass, the tops of churches are adorned with, derive their glittering brightness from their being exposed, *unscreened*, to the sun's refulgent beams.

*Boyle.*

UNSCRIPTURAL, *adj.* Not defensible by Scripture.

The doctrine delivered in my sermon was neither new nor *unscriptural*, nor in itself false.

*Atterbury.*

UNSEAL, *v. a.* To open any thing sealed.

Your oaths

Are words, and poor conditions but *unsealed*. *Shakspeare.*

This new glare of light,

Cast sudden on his face, *unsealed* his sight. *Dryden.*

UNSEAM, *v. a.* To rip; cut open.

He ne'er shook hands, nor bid farewell to him,  
Till he *unseamed* him from the nape to the' chops,  
And fixed his head upon our battlements. *Shakspeare.*

UNSEARCH'ABLE, *adj.* & *n. s.* } Inscruta-

UNSEARCH'ABLENESS, *n. s.* } ble; not to be explored: that which is so: state of being so.

The *unsearchableness* of God's ways should be a bridle to restrain presumption, and not a sanctuary for spirits of error.

*Bramhall.*

Job discourseth of the secrets of nature, and *unsearchable* perfections of the works of God.

*Tillotson.*



It is a vast hindrance to the enrichment of our understandings, if we spend too much of our time among infinite and unsearchables. *Watts.*

**UNSEASONED**, *adj.* } Untimely; ill  
**UNSEASONABLE**, } timed. Out of use.  
**UNSEASONABLY**, *adv.* } Unseasonable is of  
**UNSEASONABLENESS**, *n. s.* } similar signification,  
 and the adverb and noun substantive correspond.

Is then a very unseasonable time to plead law, when swords are in the hands of the vulgar. *Spenser.*

Some things it asketh unseasonably, when they need not to be prayed for; as deliverance from thunder and tempest when no danger is nigh. *Hooker.*

I think myself in a better plight for a lender than you are; the which has something emboldened me to this unseasoned intrusion. *Shakspeare.*

The moral goodness, unfitness, and unseasonableness of moral or natural actions falls not within the verge of a brutal faculty. *Hale's Origin of Mankind.*

**UNSECONDED**, *adj.* Not supported.  
 Strange and unseconded shapes of worms succeeded. *Brounck.*

**UNSECREET**, *v. a.* To disclose; to divulge.  
 He that consulteth what he should do, should not declare what he will do: but let princes beware that the unsecreting of their affairs comes not from themselves. *Bacon.*

**UNSECURE**, *adj.* Not safe.  
 Love, though most sure,  
 Yet always to itself seems unsecure. *Denham.*

**UNSEDUCED**, *adj.* Not drawn to ill.  
 Among innumerable false, unmoved,  
 Unshaken, unseduced, untermified. *Milton.*

**UNSEEM**, *v. n.* } Not to seem. Not in  
**UNSEEM'LY**, *adj. & adv.* } use. Unseemly means  
**UNSEEM'LINESS**, *n. s.* } unbecoming; indecent:  
 indecently; unbecomingly: the noun substantive corresponds.

Charity doth not behave itself unseemly, seeketh not her own. *I Cor. xiii. 5.*

Adultery of the tongue, consisting in corrupt, dishonest, and unseemly speeches. *Perkins.*

All as before his sight whom we fear, and whose presence to offend with any the least unseemliness we would be surely as loth as they who most reprehend or deride that we do. *Hooker.*

You wrong the reputation of your name,  
 In so unseemly to confess receipt  
 Of that which hath so faithfully been paid. *Shakspeare.*

Her gifts  
 Were such, as under government well seemed;  
 Unseemly to bear rule. *Milton's Paradise Lost.*

I wish every unseemly idea and wanton expression had been banished from amongst them. *Watts.*

**UNSEEN**, *adj.* } Not seen; not discovered;  
**UNSEE'ING**. } not discoverable: unseeing is  
 without vision.

I should have scratched out your unseeing eyes,  
 To make my master out of love with thee. *Shakspeare.*  
 Millions of spiritual creatures walk the earth  
 Unseen, both when we wake, and when we sleep. *Milton.*

**UNSELF'ISH**, *adj.* Not addicted to private interest.

The most interested cannot purpose any thing so much to their own advantage, notwithstanding which the inclination is nevertheless unselfish. *Spectator.*

**UNSENT**, *adj.* Not sent; *unsent for*, not called by letter or messenger.

If a physician should go from house to house *unsent for*, and enquire what woman hath a cancer, or what man a fistula, he would be as unwelcome as the disease itself. *Taylor.*

Somewhat of weighty consequence brings you here so often, and *unsent for*. *Dryden.*

**UNSEPARABLE**, *adj.* } Not to be parted or  
**UNSEPARATED**. } divided: not parted.  
 Oh world, thy slippery turns! Friends now fast  
 sworn,

Who twine as 'twere in love  
 Unseparable, shall, within this hour,  
 Break out to bitterest enmity. *Shakspeare.*

There seek the Theban bard;  
 To whom Persephone entire and whole  
 Gave to retain the' unseparated soul. *Pope's Odyssey.*

**UNSERVICEABLE**, *adj.* } Useless; bring-  
**UNSERVICEABLY**, *adv.* } ing no advantage or  
 convenience: the adverb corresponding.

It can be no *unserviceable* design to religion, to undeceive men in so important a point. *Rogers.*

It does not enlarge the dimensions of the globe, or lie idly and *unserviceably* there. *Woodward.*

**UNSET**, *adj.* Not set; not placed.

They urge that God left nothing in his word undescribed, nothing *unset* down; and therefore charged them strictly to keep themselves to that without any alteration. *Hooker.*

**UNSETTLE**, *v. a.* } To make uncertain or  
**UNSETTLED**, *adj.* } unfixed: unfixed: state  
**UNSETTLEDNESS**, *n. s.* } of being unfixed.

David supposed that it could not stand with the duty which he owed unto God, to set himself in an house of cedar trees, and to behold the ark of the Lord's covenant *unsettled*. *Hooker.*

A solemn air, and the best comforter  
 To an *unsettled* fancy, cure thy brains. *Shakspeare.*

*Unsettled* virtue stormy may appear;  
 Honour, like mine, serenely is severe. *Dryden.*

The *unsettledness* of my condition has hitherto put a stop to my thoughts concerning it. *Id.*

**UNSEVERED**, *adj.* Not parted.  
 Their hands, though slack, no dissolution fear;  
 The *unsevered* parts the greatest pressure bear;

Though loose, and fit to flow, they still cohere. *Black.*

**UNSEX**, *v. a.* To make otherwise than the sex commonly is.

All your spirits  
 That tend on mortal thoughts, *unsex* me here,  
 And fill me, from the crown to the toe, top full  
 Of direst cruelty. *Shakspeare. Macbeth.*

**UNSHADOWED**, *adj.* Not clouded; not darkened.

He alone sees all things with an *unshadowed*, comprehensive vision, who eminently is all. *Glanville.*

**UNSHAKEN**, *adj.* } Not agitated; not  
**UNSHAK'ABLE**. } moved: not to be moved.

Your isle stands,  
 As Neptune's park, ribbed and paled in  
 With rocks *unshakeable*, and roaring waters. *Shakspeare.*

I know but one  
 That unassailable holds on his rank,  
 Unshak'd of motion. *Id. Julius Cæsar.*

Ill thou wast shrouded then,  
 O patient Son of God! yet only stood'st  
 Unshaken. *Milton's Paradise Regained.*

**UNSHACK'LE**, *v. a.* To loose from bonds.  
 A laudable freedom of thought *unshackles* their minds from the narrow prejudices of education, and opens their eyes to a more extensive view of the public good. *Addison.*

**UNSHAM'ED**, *adj.* Not shamed.  
 The brave man seeks not popular applause;  
 Unshamed, though foiled, he does the best he can:

Force is of brutes, but honour is of man. *Dryden.*

**UNSHAP'EN**, *adj.* Mishapen; deformed.  
 This *unshapen* earth we now inhabit, is the form it was found in when the waters had retired. *Burnet.*

**UNSHAR'ED**, *adj.* Not partaken; not had in common.

Bliss, as thou hast part, to me is bliss;  
 Tedium *unshared* with thee, and odious soon. *Milton.*

**UNSHEATH'**, *v. a.* To draw from the scabbard.

Executioner, *unsheath* thy sword. *Shakspeare.*

**UNSHED'**, *adj.* Not spilt.

To blood *unshed* the rivers must be turned. *Milton.*

**UNSHELTERED**, *adj.* Wanting a screen; wanting protection.

He is breeding that worm, which will smite this gourd, and leave him *unsheltered* to that scorching wrath of God, which will make the improvement of Jonah's passionate wish, that God would take away his life, his most rational desire. *Decay of Piety.*

**UNSHIELD'ED**, *adj.* Not guarded by the shield.

He tried a tough, well-chosen spear; Though Cygnus then did no defence provide, But scornful offered his *unshielded* side. *Dryden.*

**UNSHIP'**, *v. a.* To take out of a ship.

At the Cape we landed for fresh water; but, discovering a leak, we *unshipped* our goods, and watered there. *Swift.*

**UNSHOCK'ED**, *adj.* Not disgusted; not offended.

Thy spotless thoughts *unshocked* the priest may hear. *Tickell.*

**UNSHOD'**, *adj.* From unshod. Having no shoes.

Withhold thy foot from being *unshod*. *Jer. ii.*  
The king's army, naked and *unshod*, would, through those inclosed parts, have done them little harm. *Clarendon.*

**UNSHORN'**, *adj.* Not clipped.

This strength diffused

No less through all my sinews, joints, and bones, Than thine, while I preserved these locks *unshorn*, The pledge of my unviolated vow. *Milton.*

Straight as a line in beauteous order stood, Of oaks *unshorn*, a venerable wood. *Dryden.*

**UNSHOT**, *part. adj.* Not hit by shot.

He that on her his bold hand lays, With Cupid's pointed arrow plays; They, with a touch, they are so keen, Wound as *unshot*, and she unseen. *Waller:*

**UNSHOUT'**, *v. a.* To annihilate or retract a shout.

*Unshout* the noise that banished Marcius; Repeal him, with the welcome of his mother. *Shakspeare.*

**UNSHOW'ERED**, *adj.* Not watered by showers.

Nor is Osiris seen

In Memphian grove or green, Trampling the *unshowered* grass with lowings loud. *Milton.*

**UNSHRINK'ING**, *adj.* Not recoiling; not shunning danger or pain.

Your son, my lord, has paid a soldier's debt, He only lived but till he was a man; The which no sooner had his prowess confirmed In the *unshrinking* station where he fought, But like a man he died. *Shakspeare. Macbeth.*

**UNSHUN'ABLE**, *adj.* Inevitable.

'Tis the plague of great ones, Prerogative are they less than the base; 'Tis destiny *unshunnable* like death. *Shakspeare.*

**UNSIPT'**, *adj.* Not parted by a sieve.

Affection! puh! you speak like a green girl, *Unsipt* in such perilous circumstances. *Shakspeare.*

**UNSIGHT'**, *adj.*

**UNSIGHT'ED**,

**UNSIGHT'LY**, *adj.*

**UNSIGHT'LINESS**, *n. s.* } Not seeing; a low word, used only with } unseen: probably formed by corruption of unsighted, which means invisible: unsightly is disagreeable to the sight: the noun substantive corresponding.

On my knees I beg That you'll vouchsafe me raiment, bed, and food. —Good Sir, no more: these are *unsightly* tricks. *Shakspeare.*

Beauties that from worth arise Are like the grace of deities, Still present with us, though *unsighted*. *Suckling.*

They'll say, our business to reform The church and state, is but a worm For to subscribe, *unsight*, unseen, To an unknown church discipline. *Hudibras.*

The *unsightliness* in the legs may be helped by wearing a laced stocking. *Wise man's Surgery.*

**UNSINCERE'**, *adj.* } Latin *insincerus*. Not } *UNSINCERE'ITY*, *n. s.* } hearty; not faithful; not genuine: the noun substantive corresponds.

I have so often met with chymical preparations which I have found *unsincere*, that I dare scarce trust any. *Boyle.*

A spirit of sea-salt may, without any *unsincerity*, be so prepared as to dissolve crude gold. *Id.*

Myrrha was joyed the welcome news to hear; But, clogged with guilt, the joy was *unsincere*. *Dryden.*

**UNSIN'EW**, *v. a.* To deprive of strength.

Nor are the nerves of his compacted strength Stretched and dissolved into *unsinewed* length. *Denham.*

The affected purity of the French has *unsinewed* their heroic verse. *Dryden.*

**UNSING'ED**, *adj.* Not scorched; not touched by fire.

By the command of Domitian when cast into a cauldron of burning oil, he came out *unsinged*. *Brown.*

Three men passed through a fiery furnace, untouched, *unsinged*. *Stephen's Sermons.*

**UNSINK'ING**, *adj.* Not sinking.

Auxur feels the cool refreshing breeze Blown off the sea, and all the dewy strand Lies covered with a smooth, *unsinking* sand. *Addison.*

**UNSIN'NING**, *adj.* Impeccable.

A perfect *unsinning* obedience, free from particular acts of transgression. *Rogers.*

**UNSKAN'NED**, *adj.* Not measured; not computed.

This tiger-footed rage when it shall find The harm of *unskanned* swiftness, will, too late, Tie leaden pounds to 's heels. *Shakspeare.*

**UNSKIL'LED**, *adj.*

**UNSKIL'FUL**,

**UNSKIL'FULLY**, *adv.*

**UNSKIL'FULNESS**, *n. s.*

Wanting skill; wanting knowledge: with in before a noun, and to before a verb: unskilful is wanting art or knowledge: the adverb and noun substantive corresponding.

The sweetness of her countenance did give such a grace to what she did, that it did make handsome the unhandomeness, and make the eye force the mind to believe that there was a praise in that *unskilfulness*. *Sidney.*

This overdone, or come tardy off, though it make the *unskilful* laugh, cannot but make the judicious grieve. *Shakspeare.*

You speak *unskilfully*; or, if your knowledge be more, it is much darkened in your malice. *Id.*

*Unskilled* in hellebore, if thou shouldst try To mix it, and mistake the quantity, The rules of physick would against thee cry. *Dryden.*

**UNSLAIN'**, *adj.* Not killed.

If there were any who felt a pity of so great a fall, and had yet any sparks of *unslain* duty left in them towards me, yet durst they not shew it. *Sidney.*

**UNSLAK'ED**, *adj.* Not quenched.

Her desires new roused, And yet *unslaked*, will kindle in her fancy, And make her eager to renew the feast. *Dryden.*



Wheat steeped in brine, drawing the brine from it,  
they mix with *unslacked* lime beat to powder, and so  
sow it. *Mortimer.*

**UNSLEEPING**, *adj.* Ever wakeful.  
And roseate dews disposed  
All but the *unsleeping* eyes of God to rest. *Milton.*  
**UNSMIRCHED**, *adj.* Unpolluted; not  
stained.

That drop of blood that's calm proclaims me bas-  
tard;  
Cries cuckold to my father; brands the harlot  
Even here between the chaste and *unsmirched* brow  
Of my true mother. *Shakspeare. Hamlet.*

**UNSMOKED**, *adj.* Not smoked.  
His antient pipe in sable died,  
And half *unsmoked*, lay by his side. *Swift.*  
**UNSMOOTH**, *adj.* Rough; not even; not  
level. Not used.

Those blossoms, and those drooping gums  
That lie bestrown, unsightly, and *unsmooth*,  
Ask riddance, if we mean to tread with ease. *Milton.*  
**UNSOCCIALE**, *adj.* } Lat. *insociabilis*. Not  
**UNSOCCIALE**, *adv.* } kind; not suitable to  
society: the adverb corresponding.

By how much the more we are accompanied with  
plenty, by so much the more greedily is our end desired,  
whom, when time hath made *unsociable* to others, we  
become a burden to ourselves. *Raleigh.*  
These are pleased with nothing that is not *unsociably*  
sour, ill-natured, and troublesome. *L'Estrange.*

**UNSOILED**, *adj.* Not polluted; not tainted;  
not stained.  
The humours are transparent, to let in the light, *un-*  
*soiled* and unsophisticated by any inward tincture. *Ray.*

**UNSOLD**, *adj.* Not exchanged for money  
Mopsus the sage, who future things foretold;  
And t' other seer, yet by his wife *unsold*. *Dryden.*  
Adieu, my children! better thus expire  
Unstalled, *unsold*; thus glorious mount in fire. *Pope.*  
**UNSOLDIERLIKE**, *adj.* Unbecoming a sol-  
dier.

Perhaps they had sentinels waking while they slept;  
but even this would be *unsoldierlike* in our age. *Broom.*

**UNSOLED**, *adj.* Fluid; not coherent.  
The extension of body is nothing but the cohesion of  
solid, separable, moveable parts; and the extension of  
space, the continuity of *unsolid*, inseparable, and un-  
moveable parts. *Locke.*

**UNSOLVED**, *adj.* Not explicated.  
Why may not a sincere searcher of truth, by labour  
and prayer, find out the solution of those perplexities  
which have hitherto been *unsolved*? *Watts.*

**UNSOPHISTICATED**, *adj.* Not adulterated;  
not counterfeit.

If authors will not keep close to truth by unvaried  
terms, and plain, *unsophisticated* arguments; yet it con-  
cerns readers not to be imposed on by fallacies. *Locke.*

**UNSORTED**, *adj.* Not distributed by proper  
separation.

Their ideas, ever indifferent and repugnant, lie in the  
brain *unsorted*, and thrown together without order. *Watts.*

**UNSOUGHT**, *adj.* Had without seeking; not  
explored.

Mad man, that does seek  
Occasion of wrath, and cause of strife,  
She comes *unsought*, and shunned follows eke. *Spenser.*  
Hopeless to find, yet loth to leave *unsought*,  
Or that, or any place that harbours men. *Shakspeare.*  
Her virtue, and the conscience of her worth,  
That would be woo'd, and not *unsought* be won. *Milton.*

**UNSOUND**, *adj.* } Sickly; wanting health;  
**UNSOUND**, *adj.* } not true; not solid; not  
**UNSOUNDNESS**, *n. s.* } orthodox; unsounded is  
untried; not tried by the plummet: *unsoundness*  
corresponds with *unsound*.

Their vain humours, fed  
With fruitless follies and *unsound* delights. *Spenser.*  
If this be *unsound*, wherein doth the point of *un-*  
*soundness* lie? *Hooker.*

Glo'ster is  
*Unsound* yet, and full of deep deceit. *Shakspeare.*  
Intemperate youth  
Ends in an age imperfect, and *unsound*. *Denham.*

**UNSOUR**, *adj.* Not made sour.  
Meat and drink last longer unputrified and *unsoured*  
in winter than in summer. *Bacon.*

Secure these golden early joys,  
That youth *unsoured* with sorrow bears. *Dryden.*  
**UNSOWN**, *adj.* Not propagated by scattering  
seed.

Mushrooms come up hastily in a night, and yet are  
*unsown*. *Bacon.*  
The flowers *unsown* in fields and meadows reigned,  
And western winds immortal spring maintained. *Dryden.*

**UNSPARED**, *adj.* } Not spared: not spar-  
**UNSPARING**. } ing.

Whatever thing  
The scythe of time mows down, devour *unspared*.  
*Milton.*

She gathers tribute large, and on the board  
Heaps with *unsparing* hand. *Id.*

**UNSPEAK**, *v. a.* } To retract; recant: un-  
**UNSPEAKABLE**, *adj.* } speakable is not to be  
**UNSPEAKABLY**, *adv.* } told or uttered: the ad-  
verb corresponding.

A thing, which uttered with true devotion and zeal  
of heart, affordeth to God himself that glory, that aid to  
the weakest sort of men, to the most perfect that solid  
comfort, which is *unspeakable*. *Hooker.*

I put myself to thy direction, and  
*Unspeak* mine own detraction; here abjure  
The taints and blames I laid upon myself. *Shakspeare.*

When nature is in her dissolution, and presents us  
with nothing but bleak and barren prospects, there is  
something *unspeakably* chearful in a spot of ground  
which is covered with trees, that smile amidst all the  
rigours of winter. *Spectator.*

**UNSPECIFIED**, *adj.* Not particularly men-  
tioned.

Were it not requisite that it should be concealed, it  
had not passed *unspecified*. *Broom.*

**UNSPECULATIVE**, *adj.* Not theoretical.  
Some *unspeculative* men may not have the skill to ex-  
amine their assertions. *Government of the Tongue.*

**UNSPED**, *adj.* Not despatched; not per-  
formed.

Venus withdraws  
*Unsped* the service of the common cause. *Garth.*

**UNSPENT**, *adj.* Not wasted; not diminished;  
not weakened; not exhausted.

The sound, inclosed within the sides of the bell  
cometh forth at the holes *unspent* and more strong. *Bacon.*

**UNSPHERE**, *v. a.* To remove from its orb  
You put me off with limber vows; but I,  
Though you would seek t' *unsphere* the stars with oaths,  
Should yet say, Sir, no going. *Shakspeare.*

*Unsphere*  
The spirit of Plato, to unfold  
What worlds or what vast regions hold  
The immortal mind. *Milton.*

**UNSPIED**, *adj.* Not searched; not explored.  
With narrow search I must walk round  
This garden, and no corner leave *unspied*. *Milton.*

**UNSPILT**, *adj.* Not shed.

That blood which thou and thy great grandsire shed,  
And all that since these sister nations bled,  
Had been *unspilt*, had happy Edward known,  
That all the blood he spilt had been his own. *Denham.*

**UNSPIRIT**, *v. a.* To dispirit; depress, deject.

Denmark has continued ever since weak and *unspirited*, bent only upon safety. *Temple.*

Could it be in the power of any temporal loss, so much to discompose and *unspirit* my soul? *Norris.*

**UNSPOILED**, *adj.* Not plundered or pilaged.

All the way that they fled, for very despatch, in their return they utterly wasted whatsoever they had before left *unspoiled*. *Spenser's State of Ireland.*

Bathurst, yet *unspoiled* by wealth. *Pope.*

**UNSPOTTED**, *adj.* Not marked with stain or spot.

Pure religion and undefiled is this, to visit the fatherless and widows in their affliction, and to keep himself *unspotted* from the world. *James i. 27.*

A heart *unspotted* is not easily daunted. *Shaksp.*

Vindicate the honour of religion, by a pure and *unspotted* obedience to its precepts. *Rogers.*

**UNSQUARED**, *adj.* Not formed; irregular.

When he speaks,

'Tis like a chime a-mending, with terms *unsquared*,  
Which, from the tongue of roaring Typhon dropt,  
Would seem hyperboles. *Shakespeare.*

**UNST**, the most northern of the Shetland Isles, constituting a parish. It is of an irregular oblong figure, twelve miles long, and four broad. The surface is hilly. The chief hill is Vallafeld, which extends the whole length of the island along its west coast. Crossfield crosses it in the middle. The soil is fertile, though the culture is bad. Fine rock crystals are found in it, also jaspers and topazes. Large caves are in it 300 feet under ground.

**UNSTABLE**, *adj.* Lat. *instabilis*. Not fixed; not fast.

A double-minded man is *unstable* in all his ways.

*James i. 8.*

A popular state, not founded on the general interests of the people, is of all others the most uncertain, *unstable*, and subject to the most easy changes. *Temple.*

**UNSTALD**, *adj.* } Not cool; not prudent;

**UNSTAINED**, *n. s.* } not settled into discretion: the noun substantive corresponding.

Wo to that land,

Which gasps beneath a child's *unstaid* command!

*Sandys.*

The oft changing of his colour, with a kind of shaking *unstaidness* over all his body, he might see in his countenance some great determination mixed with fear.

*Sidney.*

**UNSTAINED**, *adj.* Not stained; not dyed; not dishonoured.

Pure and *unstained* religion ought to be the highest of all cares appertaining to publick regimen. *Hooker.*

I will do it without fear or doubt,

To live an *unstained* wife to my sweet love. *Shaksp.*  
Her people guiltless, and her fields *unstained*.

*Roscommon.*

**UNSTATE**, *v. a.* To put out of dignity.

High-battled Cæsar will

*Unstate* his happiness, and be staged to the shew  
Against a sword. *Shakespeare.*

I would *unstate* myself, to be in a due resolution. *Id.*

**UNSTATUTABLE**, *adj.* Contrary to statute.

That plea did not avail, although the lease were notoriously *unstatutable*, the rent reserved being not a seventh part of the real value. *Swift.*

**UNSTAUNCHED**, *adj.* Not stopped; not stayed.

With the issuing blood  
Stifle the villain, whose *unstaunched* thirst  
York and young Rutland could not satisfy. *Shaksp.*

**UNSTEADFAST**, *adj.* Not fixed; not fast, not resolute.

I'll read you matter,  
As full of peril and advent'rous spirit,  
As to o'erwalk a current, roaring loud,  
On the *unsteadfast* footing of a spear. *Shakespeare.*

**UNSTEADY**, *adj.* } Inconstant; irresolute:

**UNSTEADILY**, *adv.* } the adverb and noun sub-

**UNSTEADINESS**, *n. s.* } stantive corresponding.

And her *unsteady* hand hath often placed  
Men in high power, but seldom holds them fast.

*Denham.*

He that uses his words loosely and *unsteadily* will  
not be minded, or not understood. *Locke.*

A prince of this character will instruct us, by his example, to fix the *unsteadiness* of our politics.

*Addison.*

**UNSTEEPED**, *adj.* Not soaked.

Other wheat was sown *unsteeped*, but watered twice  
a day. *Bacon's Natural History.*

**UNSTING**, *v. a.* To disarm of a sting.

He has disarmed his afflictions, *unstung* his miseries;  
and, though he has not the proper happiness of the  
world, yet he has the greatest that is to be enjoyed in  
it. *South's Sermons.*

**UNSTINTED**, *adj.* Not limited.

In the works of nature is *unstinted* goodness shewn  
us by their Author. *Shelton.*

**UNSTIRRED**, *adj.* Not stirred; not agitated.

Such seeming milks suffered to stand *unstirred*, let  
fall to the bottom a resinous substance. *Boyle.*

**UNSTITCH**, *v. a.* To open by picking the stitches.

Cato well observes, though in the phrase of a taylor,  
friendship ought not to be unripped, but *unstitched*.

*Collier.*

**UNSTOOPING**, *adj.* Not bending; not yielding.

Such neighbour nearness to our sacred blood  
Should nothing privilege him, nor partialize  
The *unstooping* firmness of my upright soul. *Shaksp.*

**UNSTOP**, *v. a.* To free from stop or obstruction; to open.

The eyes of the blind shall be opened, and the ears  
of the deaf *unstopped*. *Isaiah xxxv. 5.*

Such white fumes have been afforded, by *unstopping*  
a liquor diaphanous and red. *Boyle.*

**UNSTRAINED**, *adj.* Easy; not forced.

By an easy and *unstrained* derivation, it implies the  
breath of God. *Hakewill on Providence.*

**UNSTRAITENED**, *adj.* Not contracted.

The eternal wisdom, from which we derive our beings,  
enriched us with all these ennoblements that were  
suitable to the measures of an *unstrained* goodness,  
and the capacity of such a creature. *Glanville.*

**UNSTRENGTHENED**, *adj.* Not supported; not assisted.

The church of God is neither of capacity so weak,  
nor so *unstrengthened* with authority from above, but  
that her laws may exact obedience at the hands of her  
own children. *Hooker.*

**UNSTRING**, *v. a.* To relax any thing strung;  
to deprive of strings.

My tongue's use is to me no more  
Than an *unstrung* viol or harp. *Shakespeare.*

His idle horn on fragrant myrtles hung;  
His arrows scattered, and his bow *unstrung*. *Smith.*

**UNSTRUCK**, *adj.* Not moved; not affected.



Over dank and dry,  
They journey toilsome, unfatigued with length  
Of march, *unstruck* with horror at the sight  
Of Alpine ridges bleak. *Philips.*

**UNSTUDIED**, *adj.* Not premeditated; not labored.

In your conversation I could observe a clearness of notion expressed in ready and *unstudied* words. *Dryden.*

**UNSTUFFED**, *adj.* Unfilled; not crowded.

Care keeps his watch in every old man's eye;  
And, where care lodgeth, sleep will never lie;  
But, where unbruised youth with *unstuffed* brain  
Doth couch his limbs, there golden sleep doth reign. *Shakespeare.*

**UNSUBSTANTIAL**, *adj.* Not solid; not palpable or real.

Welcome, thou *unsubstantial* air that I embrace! *Shakespeare.*

If empty *unsubstantial* beings may be ever made use of on this occasion, there were never any more nicely imagined and employed. *Addison.*

**UNSUCCEED'ED**, *adj.* Not succeeded.

Unjust equal o'er equals to let reign;  
One over all, with *unsucceeded* power. *Milton.*

**UNSUCCESSFUL**, *adj.* Not having the *UNSUCCESSFULLY*, *adv.* } wished event; not

*UNSUCCESSIVE*, *adj.* } fortunate: the adverb corresponding: *unsuccessive* is not proceeding by regular flux.

Oh the sad fate of *unsuccessful* sin!

You see yon heads without: there's worse within. *Cleveland.*

Admonitions, fraternal or paternal, then more public reprehensions, and, upon the *unsuccessfulness* of all these milder mendicaments, the censures of the church. *Hammond.*

My counsels may be *unsuccessful*, but my prayers  
Shall wait on all your actions. *Denham.*

We cannot sum up the *unsuccessive* and stable direction of God. *Broune.*

**UNSUCK'ED**, *adj.* Not having the breasts drawn.

*Unucked* of lamb or kid, that tend their play. *Milr.*

**UNSUFFERABLE**, *adj.* Not supportable; not to be endured.

The irksome deformities, whereby, through endless and senseless effusions of indigested prayers, they oftentimes disgrace, in most *unsufferable* manner, the worthwhile part of Christian duty towards God. *Hooker.*

That glorious form, that light *unsufferable*. *Milton.*

**UNSUCCESSFUL**, *n. s.* } Fr. *insuffisance*.

**UNSUCCESSFUL**, *adj.* } Inability to answer the end proposed: the adjective corresponding.

The error and *unsufficiency* of the arguments doth make it on the contrary side against them. *Hooker.*

Malebranche having shewed the difficulties of the other ways, and how *unsufficient* they are to give a satisfactory account of the ideas we have, erects this, of seeing all things in God, upon their ruin, as the true. *Locke.*

**UNSUG'ARED**, *adj.* Not sweetened with sugar.

Try it with sugar put into water formerly sugared, and into other water *unsugared*. *Bacon.*

**UNSUITABLE**, *adj.* Not congruous; not

*UNSUITABLENESS*, *n. s.* } equal; not proportion-

*UNSUITING*, *adj.* } ate: the noun substantive corresponding: *unsuiting* is not fitting or becoming.

Virginity, like an old courtier, wears her cap out of fashion; richly suited, but *unsuitable*, just like the brooch and the toothpick, which we wear not now. *Shakespeare.*

Hard recompence, *unsuitable* return  
For so much good. *Milton.*

The *unsuitableness* of one man's aspect to another man's fancy has raised such an aversion, as has produced a perfect hatred of him. *South.*

Leave thy joys, *unsuiting* such an age,  
To a fresh comer, and resign the stage. *Dryden.*

**UNSUL'LIED**, *adj.* Not fouled; not disgraced; pure.

My maiden honour yet is pure

As the *unsullied* lilly. *Shakespeare.*

To royal authority a most dutiful observance has ever been the proper, *unsullied* honour of your church. *Sprat.*

**UNSUNG**, *adj.* Not celebrated in verse; not recited in verse.

Thus was the first day even and morn,

Nor passed *uncelebrated* nor *unsung*

By the celestial choirs. *Milton.*

There is a liberty

*Unsung* by poets and by senators unpraised. *Cowper.*

**UNSUNNED**, *adj.* Not exposed to the sun.

I thought her as chaste as *unsunned* snow. *Shaksp.*

**UNSUPERFLUOUS**, *adj.* Not more than enough.

Nature's full blessings would be well dispensed

In *unsuperfluous*, even proportion,

And she no whit encumbered with her store. *Milton.*

**UNSUPPLANTED**, *adj.* Not forced or thrown from under that which supports it.

Gladsome they quaff, yet not encroach on night,

Season of rest; but well bedewed repair

Each to his home with *unsupplanted* feet. *Philips.*

**UNSUPPLIED**, *adj.* Not supplied; not accommodated with something necessary.

Prodigal in every other grant,

Her sire left *unsupplied* her only want. *Dryden.*

**UNSUPPORTED**, *adj.* } Not sustained; not

*UNSUPPORTABLE*, } held up: intolerable:

*UNSUPPORTABLY*, *adv.* } the adverb corre-

sponding.

Them she upstays

Gently with myrtle band; mindless the while

Herself, though fairest *unsupported* flower. *Milton.*

The uneasiness of unrelieved thirst by continuance grows the more *unsupportable*. *Boyle.*

For a man to do a thing, while his conscience assures him that he shall be infinitely, *unsupportably* miserable, is certainly unnatural. *South.*

**UNSURE**, *adj.* Not fixed; not certain.

The men he pressed but late

To hard assays unfit, *unsure* at need,

Yet armed to point in well attempted plato. *Fairfax.*

The king, supposing his estate to be most safe, when indeed most *unsure*, advanced many to new honours. *Hayward.*

**UNSMOUNTABLE**, *adj.* Fr. *insurmontable*.

Insurmountable; not to be overcome.

What safety is it, for avoiding seeming absurdities, and *unsmountable* rubs, in one opinion, to take refuge in the contrary, which is built on something altogether as inexplicable? *Locke.*

**UNUSCEPTIBLE**, *adj.* Incapable: a liable to admit.

She, a goddess died in grain,

Was *unusceptible* of stain. *Swift.*

**UNSUSPECT**, *adj.* Not considered as likely

*UNSUSPECT'ED*, } to do or mean ill: unsus-

*UNSUSPECT'ING*, } pecting is not suspicious.

Here is the head of that ignoble traitor,

The dangerous and *unsuspected* Hastings. *Shakespeare.*

Author *unsuspect*

Friendly to man, far from deceit or guile. *Milton.*

When Albion sends her eager sons to war,

Pleased, in the general's sight, the host lie down

Sudden before some *unsuspecting* town. *Pope.*

**UNSUSPICIOUS**, *adj.* Having no suspicion

The easy queen received my faint address  
With eager hope and *unuspicious* faith.

Smith.

**UNSUSTAINED**, *adj.* Not supported; not held up.

Its head, though gay,

Hung drooping, *unsustained*.

Milton.

All *unsustained* between the wave and sky,

Beneath my feet the whirling billows fly.

Pope.

**UNSWATHE**, *v. a.* To free from folds or convolutions of bandage.

In the morning an old woman came to *unswathe* me.

Addison.

**UNSWAYABLE**, *adj.* } Not to be governed  
**UNSWAYED**. } or influenced by another: not wielded.

He bowed his nature, never known before

But to be rough, *unswayable*, and free.

Shakespeare.

Is the chair empty? is the sword *unswayed*?

Is the king dead? the empire unpossessed?

Id.

**UNSWEAR**, *v. n.* Not to swear; recant.

The ape was glad to end the strife so light,

And thereto swore; for who would not oft swear,

And oft *unswear*, a diadem to bear?

Spenser.

**UNSWEAR**, *v. a.* } To ease after fatigue;

**UNSWEARING**, *adj.* } cool: not sweating.

The interim of *unswearing* themselves regularly, and convenient rest before meal, may, with profit and delight, be taken up with solemn music.

Milton.

In frost and snow, if you complain of heat,

They rub the *unswearing* brow, and swear they sweat.

Dryden.

**UNSWEET**, *adj.* Not sweet; disagreeable.

Long were to tell the troublous storms that toss

The private state, and make the life *unsweet*.

Spenser.

**UNSWEPT**, *adj.* Not brushed away; not cleaned by sweeping.

What custom wills in all things, should we do't,

The dust of antique time would lie *unswept*.

Shakspeare.

**UNSWORN**, *adj.* Not bound by an oath.

You are yet *unsworn*;

When you have vowed, you must not speak with men.

**UNTAINTED**, *adj.* Not sullied; not polluted.

Sweet prince, the' *untainted* virtue of your years

Hath not yet dived into the world's deceit.

Shakspeare.

Ireland's *untainted* loyalty remained.

Roscommon.

**UNTAKEN**, *adj.* Not taken.

Until this day remaineth the vail *untaken* away.

2 Cor. iii.

The English searched the rivers in such sort, as they left few ships unspoiled or *untaken*.

Hayward.

**UNTALKED OF**, *adj.* Not mentioned in the world.

No happiness can be, where is no rest;

The' unknown, *untalked of* man is only blest.

Dryden.

**UNTAMED**, *adj.* } Not subdued; not sub-  
**UNTAMABLE**. } pressed; not softened by culture: not to be subdued.

A people very stubborn and *untamed*; or, if ever tamed, yet lately have quite shaken off their yoke, and broken the bonds of their obedience.

Spenser.

He is swifter than any other bull, and *untameable*.

Grew.

**UNTANGLE**, *v. a.* To loose from intricacy or convulsion.

I'll give thee up my bow and dart;

*Untangle* but this cruel chain,

And freely let me fly again.

Prior.

**UNTASTED**, *adj.* } Not tasted; not tried by  
**UNTASTING**. } the palate: not perceiving any taste.

Cydonian oil,

Whose balmy juice glides o'er the' *untasting* tongue.

Smith.

If he chance to find

A new repast, or an *untasted* spring,

Blesses his stars, and thinks it luxury.

Addison.

**UNTEACH**, *v. a.* } To make to quit or forget  
**UNTEACHABLE**, *adj.* } what has been inculcated:  
**UNTAUGHT**. } not to be taught: not actually taught or cultivated.

That elder-berries are poison, as we are taught by tradition, experience will *unteach* us.

Browne.

Taught, or *untaught*, the dunce is still the same;

Yet still the wretched master bears the blame.

Dryden.

**UNTEMPERED**, *adj.* Not tempered.

One built up a wall, and others daubed it with *untempered* mortar.

Ezekiel xiii. 10.

**UNTEMPTED**, *adj.* Not embarrassed by temptation.

In temptation dispute not, but rely upon God; and contend not with him but in prayer, and with the help of a prudent *untempted* guide.

Taylor.

**UNTENABLE**, *adj.* Not to be held in possession; not capable of defence.

He produced a warrant, that, the town being *untenable*, he should retire.

Clarendon.

**UNTENANTED**, *adj.* Having no tenant.

The country seems to be full stocked with cattle, no ground being *untenanted*.

Temple.

**UNTENDED**, *adj.* Not having any attendance. They fall *unblest*, *untended*, and unmournd.

Thomson.

**UNTENDER**, *adj.* Wanting softness; wanting affection.

So young, and so *untender*?

—So young, my lord, and true.

Shakspeare.

**UNTENDERED**, *adj.* Not offered.

Cassibelan granted Rome a tribute,

Yearly three thousand pounds; which by thee lately

Is left *untendered*.

Shakspeare. Cymbeline.

**UNTENT**, *v. a.* To bring out of a tent.

Will he not, upon our fair request,

*Untent* his person, and share the air with us?

Shakspeare.

**UNTENTED**, *adj.* From tent. Having no medicaments applied.

Blasts and fogs upon thee!

The' *untented* woundings of a father's curse

Pierce every sense about thee!

Shakspeare.

**UNTERIFIED**, *adj.* Not affrighted; not struck with fear.

To succour the distrest;

Unbribed by love, *unterrified* by threats;

These are exploits worthy Achilles' son.

A. Philips.

**UNTERWALDEN**, a small canton in the centre of Switzerland, to the east of Bern, and south of Lucerne. It contains only 300 square miles, with 22,000 inhabitants; and consists of four valleys covered with meadows and pasture lands, and surrounded by lofty mountains, which form part of the Alps, rising to various heights, from 3000 to 10,000 feet: two of these, the Titlis and Surennes, are covered with glaciers and perpetual snow. In other parts, lakes, rocks, and caverns, are the characteristics of this romantic country. The canton is divided into two parts by an extensive forest; and its chief towns, or rather villages, are Sarnen and Stanz. The eastern part has a favorable exposure, a mild temperature, and excellent pastures. The exports consist of cattle, hides, cheese, butter, tallow; the imports of corn, wine, and manufactures.



**UNTHANKED**, *adj.* } Not repaid with ac-  
**UNTHANK'FUL**, } knowledge of kind-  
**UNTHANK'FULLY**, *adv.* } ness: ungrateful: the  
**UNTHANK'FULNESS**, *n. s.* } adverb and noun sub-  
 stantive corresponding.

The casting away of things profitable for sustenance is an *unthankful* abuse of the fruits. *Hooker.*

Immoderate favours breed first *unthankfulness*, and afterwards hate. *Hayward.*

If all the world  
 Should in a pet of temperance feed on pulse,  
 Drink the clear stream, and nothing wear but freeze,  
 The 'All-giver would be *unthanked*, would be unpraised. *Milton.*

I judged it requisite to say something, to prevent my being thought to have *unthankfully* taken one of the chief passages of my discourse from a book to which I was utterly a stranger. *Boyle.*

Forced from her presence, and condemned to live: Unwelcome freedom, and *unthanked* relieve. *Dryden.*

The *unthankful* stand reckoned among the most enormous sinners; which evinces the virtue opposite to *unthankfulness* to bear the same place in the rank of duties. *South.*

**UNTHAW'ED**, *adj.* Not dissolved after frost.

Your wine locked up,  
 Or fish denied, the river yet *unthawed*. *Pope.*

**UNTHINK'**, *v. a.* } To recal or dismiss a  
**UNTHINK'ING**, *adj.* } thought: unthinking is,  
 thoughtless; unreflecting.

*Unthink* your speaking, and say so no more. *Shaksp.*  
 Gray-headed infant, and in vain grown old!

Art thou to learn, that in another's gold  
 Lie charms resistless? that all laugh to find  
*Unthinking* plainness so o'erspread thy mind. *Creech.*

**UNTHORNY**, *adj.* Not obstructed by prickles.  
 It were some extenuation of the curse, if in sudore  
 vultus tui were confinable unto corporal exertations,  
 and there still remained a paradise, or *unthorny* place of  
 knowledge. *Browne.*

**UNTHREAD'**, *v. a.* To loose.  
 He with his bare wand can *unthread* thy joints,  
 And crumble all thy sinews. *Milton.*

**UNTHREATENED**, *adj.* Not menaced.  
 Sir John Hotham was unreproached, and *unthreatened*,  
 by any language of mine. *King Charles.*

**UNTHRIFT'**, *n. s. & adj.* } An extravagant; a  
**UNTHRIFT'Y**, *adj.* } prodigal. Obsolete.  
**UNTHRIFT'INESS**, *n. s.* } The adjective means,  
 as well as unthrifty, profuse; wasteful; prodigal:  
 and the noun substantive corresponds.

The castle I found of good strength, having a great  
 mote round about it, the work of a noble gentleman, of  
 whose *unthrifty* son he had bought it. *Sidney.*

My rights and royalties  
 Plucked from my arms perforce, and given away  
 To upstart *unthrifts*. *Shakspeare.*

In such a night  
 Did Jessica steal from the wealthy Jew,  
 And, with an *unthrif*t love, did run from Venice. *Id.*

The third sort are the poor by idleness or *unthrif*t-  
 ness, as riotous spenders, vagabonds, loiterers. *Hayward.*

Our attainments cannot be overlarge, and yet we  
 manage a narrow fortune very *unthrif*tily. *Collier.*

**UNTHRIV'ING**, *adj.* Not thriving; not pros-  
 pering.

Let all who thus unhappily employ their inventive  
 faculty, consider how *unthriving* a trade it is finally  
 like to prove; that their false accusations of others will  
 rebound in true ones on themselves.

**UNTHRONE'**, *v. a.* To pull down from a  
 throne. *Government of the Tongue.*

Him to *unthron*e we then  
 May hope, when everlasting fate shall yield  
 To fickle chance, and chaos judge the strife. *Milton.*

**UNTIE'**, *v. a.* To unbind; free from bonds.  
 Though you *untie* the winds, and let them fight  
 Against the churches; though the yesty waves  
 Confound and swallow navigation up. *Shakspeare.*  
 All the evils of an *untied* tongue we put upon the ac-  
 counts of drunkenness. *Taylor.*

Her hair  
*Untied*, and, ignorant of artful aid,  
 Adown her shoulders loosely lay displayed. *Prior*

**UNTIL'**, *adv. & prep.* To the time or place  
 that: to.

The sceptre shall not depart from Judah, nor a law-  
 giver from between his feet, *until* Shiloh come.

*Genesis* xlix. 10.  
 His sons were priests of the tribe of Dan *until* the day  
 of the captivity. *Judges.*

So soon as he from far descried  
 Those glistering arms, that heaven with light did fill,  
 He roused himself full blithe, and hastened them *until*.  
*Spenser.*

Treasons are acted  
 As soon as thought; though they are never believed  
*Until* they come to act. *Denham.*

In open prospect nothing bounds our eye,  
*Until* the earth seems joined unto the sky. *Dryden.*

**UNTILL'ED**, *adj.* Not cultivated.  
 Lands lain long *untill*ed contract a sour juice, which  
 causes the land to run to unprofitable tromperry.  
*Mortimer.*

The soil *untill*ed a ready harvest yields;  
 With wheat and barley wave the golden fields. *Pope.*  
**UNTIM'BERED**, *adj.* Not furnished with tim-  
 ber; weak.

Where 's then the saucy boat,  
 Whose weak *untimbered* sides but even now  
 Co-rivalled greatness? or to harbour fled,  
 Or made a toast for Neptune? *Shakspeare.*

**UNTIME'LY**, *adj. & adv.* Happening before  
 the natural time: before that time.

He only fair, and what he fair hath made;  
 All other fair, like flowers, *untimely* fade. *Spenser.*  
 Boundless intemperance hath been  
 The' *untimely* emptying of the happy throne. *Shaksp.*

Matrons and maids  
 With tears lament the knight's *untimely* fate. *Dryden*  
 Such were the notes thy once-loved poet sung.  
 Till death *untimely* stopped his tuneful tongue,  
 Oh just behold and lost! *Pope.*

**UNTING'ED**, *adj.* Not stained; not discoloured.  
 It appears what beams are *untinged*, and which paint  
 the primary or secondary iris. *Boyle on Colours.*  
 Your inattention I cannot pardon; Pope has the same  
 defect, neither is Bolingbroke *untinged* with it.

*Swift to Gay.*  
**UNTIR'ED**, *adj.* } Not made weary: inde-  
**UNTIR'ABLE**. } fatigable.

A most incomparable man, breathed as it were  
 To an *untirable* and continueate goodness. *Shakspeare.*  
 See great Marcellus! how *untired* in toils  
 He moves with manly grace, how rich with regal spoils!  
*Dryden.*

**UNTITLED**, *adj.* Un and title. Having no  
 title.

O nation miserable!  
 With an *untitled* tyrant, bloody sceptered;  
 When shalt thou see thy wholesome days again?  
*Shakspeare.*

**UNTO**, *prep.* It was the old word for to; now  
 obsolete. To. See To.

O continue thy loving kindness *unto* them!  
*Psalms* xxxvi.

She, oy her wicked arts and way still  
Unwares me wrought unto her wicked will. *Spenser.*  
It was their heart untruly to attribute such great  
power unto false gods. *Hooker.*

UNTOLD', *adj.* Not related.

Better a thousand such as I,  
Their grief untold, should pine and die;  
Than her bright morning, overcast  
With sullen clouds, should be defaced. *Waller.*  
Obscene words are very indecent to be heard: for  
that reason, such a tale shall be left untold by me.  
*Dryden.*

UNTOUCH'ED, *adj.* Not touched; not reached  
or affected.

They, like persons wholly *untouched* with his agonies,  
and unmoved with his passionate entreaties, sleep away  
all concern for him or themselves. *Sidney.*

Achilles, though dipt in Styx, yet, having his heel  
*untouched* by that water, was slain in that part.

Three men passed through a fiery furnace *untouched*,  
unsingled. *Browne's Vulgar Errors.*  
*Stephen's Sermons.*

UNTOW'ARD, *adj.* } Froward; perverse;  
UNTOW'ARDLY, *adj. & adv.* } vexatious; not easily  
guided, or taught: the adjective and adverb corres-  
pond.

Have to my window; and, if she be froward,  
Then hast thou taught Hortensio to be *untoward*.

*Shakespeare.*

The ladies prove adverse,  
And more *untoward* to be won,  
Than by Caligula the moon. *Hudibras.*

He that provides for this short life, but takes no care  
for eternity, acts as *untowardly* and as crossly to the  
reason of things as can be. *Tillotson.*

He explained them very *untowardly*. *Id.*  
They learn from unbred or debauched servants, *un-*  
*towardly* tricks and vices. *Locke on Education.*

UNTRACED', *adj.* } Not marked by any foot-  
UNTRACE'ABLE. } steps: not to be traced.

Nor wonder if, advantaged in my flight  
By taking wing from thy auspicious height,  
Through *untraced* ways and airy paths I fly,  
More boundless in my fancy than my eye. *Denham.*

The workings of Providence are secret and *untrace-*  
*able*, by which it disposes of the lives of men.

*South's Sermons.*

UNTRACTABLE, *adj.* } Fr. *intruitable*; Lat.  
UNTRACT'ABLENESS, *n. s.* } *intractabilis*. Not  
yielding to common measures and management;  
not governable: the noun substantive corresponding.

I forced to ride the *untractable* abyss. *Milton.*

If any father have a son thus perverse and *untract-*  
*able*, I know not what more he can do but pray for him.

*Locke.*

The great difference in men's intellects arises from  
a defect in the organs of the body particularly adapted  
to think; or in the dulness or *untractableness* of those  
faculties, for want of use. *Id.*

UNTRADING, *adj.* Not engaged in com-  
merce.

Men leave estates to their children in land, as not so  
liable to casualties as money in *untrading* and unskilful  
hands. *Locke.*

UNTRAINED', *adj.* Not educated; not dis-  
ciplined.

My wit *untrained* in any kind of art. *Shakespeare.*

The king's forces charged lively, and they again as  
stoutly received the charge; but being an *untrained*  
multitude, without any soldier or guide, they were soon  
put to flight. *Hayward.*

UNTRANSFER'ABLE, *adj.* Incapable of  
being given from one to another.

In parliament there is a rare co-ordination of power,

though the sovereignty remain still entire and *untrans-*  
*ferrable* in the prince. *Howel.*

UNTRANSPA'RENT, *adj.* Not diaphanous;  
opaque.

Though held against the light, they appeared of a  
transparent yellow; yet, looked on with one's back  
turned to the light, they exhibited an *untransparent*  
blue. *Boyle on Colours.*

UNTRAV'ELLED, *adj.* Never trodden by pas-  
sengers; having never travelled.

We find no open track or constant manuduction in  
this labyrinth, but are oftentimes fain to wander in Ame-  
rica and *untravelled* parts. *Browne.*

An *untravelling* Englishman cannot relish all the beau-  
ties of Italian pictures; because the postures expressed  
in them are often such as are peculiar to that country.

*Addison.*

UNTREAD', *v. a.* } To tread back; to go  
UNTROD', *adj.* } back in the same steps: not  
UNTROD'DEN. } passed or trodden.

We will *untread* the steps of damned flight,  
And, like a bated and retired flood,  
Leaving our rankness and irregular course,  
Stoop low within those bounds we have o'erlooked.

*Shakespeare.*

The way he came not having marked; return  
Was difficult, by human steps *untrod*. *Milton.*

A garland made of such new bays,  
And sought in such *untrodden* ways,  
As no man's temples e'er did crown. *Waller.*

UNTREA'SURED, *adj.* Not laid up; not re-  
posited.

Her attendants  
Saw her a-bed, and in the morning early  
They found the bed *untreasured* of their mistress.

*Shakespeare.*

UNTREATABLE, *adj.* Not treatable; not  
practicable.

Men are of so *untreatable* a temper, that nothing can  
be obtained of them. *Decay of Piety.*

UNTRI'ED, *adj.* Not yet attempted or expe-  
rienced.

That she no ways nor means may leave *untried*,  
Thus to her sister she herself applied. *Denham.*

Never more

Mean I to try, what rash *untried* I sought,  
The pain of absence from thy sight. *Milton.*

UNTRIUMPH'ABLE, *adj.* Which allows no  
triumph.

What towns, what garrisons might you,  
With hazard of this blood subdue;  
Which now y' are bent to throw away  
In vain, *untriumphable* fray? *Hudibras.*

UNTROLLED, *adj.* Not bowled; not rolled  
along.

Hard fate! *untrolled* is now the charming dye;  
The playhouse and the park unvisited must lie. *Dryd.*  
UNTROUBLED, *adj.* Not disturbed by care,  
sorrow, or guilt.

Would they think with how small allowance  
*Untroubled* nature doth herself suffice,  
Such superfluities they would despise. *Spenser.*

The equal distribution of the spirits in the liquor  
with the tangible parts, ever representeth bodies clear  
and *untroubled*. *Hooker.*

UNTRUE', *adj.* } False; contrary to reality;  
UNTRU'LY, *adv.* } not faithful: the adverb cor-  
responds.

By what construction shall any man make those  
comparisons true, holding that distinction *untrue*?

*Hooker.*

On these mountains it is generally received that the  
ark rested, but *untruely*. *Raleigh.*

UNTRUSTINESS, *n. s.* Unfaithfulness.



Secretary Peter, under pretence of gravity, covered much *untrustiness* of heart. Hayward.

UNTRUTH, *n. s.* Falsehood; contrariety to reality or veracity.

He who is perfect, and abhors *untruth*,  
With heavenly influence inspires my youth. Sandys.

I would  
So my *untruth* had not provoked him to it,  
The king had cut off my head with my brother's.

Shakespeare.  
There is little hope for common justice, in this dispute, from a man who lays the foundations of his reasonings in so notorious an *untruth*. Atterbury.

UNTUNE', *v. a.* } To make incapable of harmony.  
UNTUN'ABLE, *adj.* } mony: inharmonious.

O you kind gods!  
Cure this great breach in his abused nature;  
The untuned and jarring senses, O wind up,  
Of this child-changed father! Shakespeare.

The trumpet shall be heard on high,  
The dead shall live, the living die,  
And musick shall untune the sky. Dryden.

His harsh *untunable* pipe is no more fit than a raven's  
to join with the musick of a choir. Tatler.

UNTUR'NED, *adj.* Not turned.  
New crimes invented, left *unturnd* no stone,  
To make my guilt appear, and hide his own. Dryden.

UNTUTORED, *adj.* Uninstructed; untaught.  
Thy mother took into her blameful bed  
Some stern *untutored* churl; and noble stock  
Was grafted with crab-tree slip, whose fruit thou art.

Shakespeare.  
UNTWINE', *v. a.* To open what is held together by convolution.

Divers worthy gentlemen of England, all the syren songs of Italy could never *untwine* from the mast of God's word. Ascham.

But since the sisters did so soon *untwine*  
So fair a thread, I'll strive to piece the line. Waller.

UNTWIST', *v. a.* To separate any things in  
woven in each other.

Untwisting his deceitful clew,  
He 'gan to weave a web of wicked guile. Spenser.

The interest of prince and people is so enfolded in a mutual embrace, that they cannot be *untwisted* without pulling a limb off. Taylor.

UNTY', *v. a.* See UNTIE. To loose.  
Unlaced her stays, her night-gown is *untyd*,  
And what she has of head-dress is aside. Young.

UNVAIL, *v. a.* To uncover; to strip of a veil. This word is unvail or unveil, according to its etymology. See VAIL and VEIL.

Troy revived, her mourning face *unvail'd*. Denham.

UNVAL'UED, *adj.* } Not prized; neglected:  
UNVAL'UABLE. } above price.

He may not, as *unvalued* persons do,  
Carve for himself; for on his choice depend  
The safety and the health of the whole state. Shakspeare.

Secure the innocence of children, by imparting to them the *unvaluable* blessing of a virtuous and pious education. Atterbury.

UNVANQUISHED, *adj.* Not conquered; not overcome.

Shall I, for lucre of the rest *unvanquished*,  
Detract so much from that prerogative,  
As to be called but viceroy of the whole? Shakspeare.

Victory doth more often fall by error of the *unvanquished*, than by the valour of the victorious.

Hayward.  
They rise *unvanquished*. Milton.

UNVARIED, *adj.* } Not changed; not diver-  
UNVAR'YABLE. } sified: not to be changed.

The two great hinges of morality stand fixt and *unvariable* as the two poles: whatever is naturally condu-

cive to the common interest, is good; and whatever has a contrary influence, is evil. Norris.

They ring round the same *unvaried* chimes,  
With sure returns of still expected rhymes. Pope.

UNVARNISHED, *adj.* Not overlaid with varnish; not adorned.

I will a round *unvarnished* tale deliver,  
Of my whole course of love; what drugs, what charms,

I won his daughter with. Shakspeare.

UNVARYING, *adj.* Not liable to change.

We cannot keep by us any standing, *unvarying* measure of duration, which consists in a constant fleeting succession, as we can of certain lengths of extension, as inches marked out in permanent parcels of matter. Locke.

UNVEIL, *v. a.* } See VAIL and VEIL. To  
UNVEIL'EDLY, *adv.* } uncover; divest of a veil;  
disclose: plainly.

The moon,  
Apparent queen, *unveiled* her peerless light. Milton.

Not knowing what use you will make of what has been *unveiledly* communicated to you, I was unwilling that some things, which had cost me pains; should fall into any man's hands that scorns to purchase knowledge with pains. Boyle.

To the limpid stream direct thy way,  
When the gay morn *unveils* her smiling ray. Pope.

UNVENTILATED, *adj.* Not fanned by the wind.

This, animals, to succour life, demand;  
Nor should the air *unventilated* stand;  
The idle deep corrupted would contain  
Blue deaths. Blackmore.

UNVER'ITABLE, *adj.* Not true.  
All these proceeded upon *unveritable* grounds.

Browne.  
UNVERSED', *adj.* Unacquainted; unskilled

Not eastern monarchs, on their nuptial day,  
In dazling gold and purple shine so gay  
As the bright natives of the unlaboured field,  
*Unversed* in spinning, and in looms unskilled.

Blackmore.  
UNVEXED, *adj.* Untroubled; undisturbed.

With a blest and *unvexed* retire,  
With unhacked swords, and helmets all unbruised,  
We will bear home that lusty blood again. Shakspeare.  
*Unvexed* with thoughts of wants which may betide;  
Or for to morrow's dinner to provide. Dryden.

UNVIOLATED, *adj.* Not injured; not broken.

Herein you war against your reputation,  
And draw within the compass of suspect  
The *unviolated* honour of your wife. Shakspeare.

He, with singular constancy, preserved his duty and fidelity to his majesty *unviolated*. Clarendon.

UNVIRTUOUS, *adj.* Wanting virtue.

If they can find in their hearts that the poor, *unvirtuous*, fat knight shall be any further afflicted, we two will be the ministers. Shakspeare.

UNVISITED, *adj.* Not resorted to.

In some wild zone  
Dwell, not *unvisited* of heaven's fair light,  
Secure. Milton.

The playhouse and the park *unvisited* must lie. Dryden.

UNUNIFORM, *adj.* Wanting uniformity.

Such an *ununiform* piety is in many so exactly apportioned to Satan's interest, that he has no cause to wish the change of his tenure. Decay of Piety.

UNVOY'AGEABLE, *adj.* Not to be passed over or voyaged.

Not this *unvoyageable* gulph obscure,  
Detain from following thy illustrious track. Milton.

**UNURGED'**, *adj.* Not incited, not pressed.

The time was once, when thou *unurged* would'st vow,  
That never words were musick to thine ear  
Unless I spake. *Shakspeare.*

**UNUSED'**, *adj.* Not put to use; unemployed;  
not accustomed.

She whose husband about that time died, forgetting  
the absent *Plangus*, or, at least, not hoping of him to  
attain so aspiring a purpose, left no art *unused*, which  
might keep the line from breaking, whereat the fish was  
already taken. *Sidney.*

One whose eyes,  
Albeit *unused* to the melting mood,  
Dropt tears as fast as the Arabian trees  
Their medicinal gum. *Shakspeare.*

**UNUSEFUL**, *adj.* Useless; serving no pur-  
pose.

I was persuaded, by experience, that it might not be  
so *unuseful* in the capacities it was intended for.  
*Glanville.*

**UNUSUAL**, *adj.* } Not common; not fre-  
**UNUSUALLY**, *adv.* } quent; rare: the adverb  
**UNUSUALNESS**, *n. s.* } and noun substantive cor-  
responding.

With this *unusual* and strange course they went  
on, till God, in whose heaviest worldly judgments I  
nothing doubt but that there may lie hidden mercy,  
gave them over to their own inventions. *Hooker.*

It is the *unusualness* of the time, not the appearance,  
that surprises *Alcinous*. *Broome.*

**UNUTTERABLE**, *adj.* Ineffable; inexpress-  
ible.

Sighs now breathed  
*Unutterable*: which the spirit of prayer  
Inspired, and winged for heaven with speedier flight  
Than loudest oratory. *Milton.*

**UNVULNERABLE**, *adj.* Exempt from wound;  
not vulnerable.

The god of soldiers inform  
Thy thoughts with nobleness, that thou mayest prove  
To shame *unvulnerable*, and stick i' the wars  
Like a great sea mark, standing every flaw! *Shaksp.*

**UNWAKENED**, *adj.* Not roused from sleep.  
The more,  
His wonder was, to find *unwakened* Eve  
With tresses discomposed. *Milton.*

**UNWALLED**, *adj.* Having no walls.  
He came to Tauris, a great and rich city, but *un-  
walled*, and of no strength. *Knolles.*

**UNWARES'**, *adv.* Unexpectedly; before any  
caution, or expectation. Obsolete.

The Deity  
Hath given so many other sighs and cares  
To my attendant state, that well *unwares*  
You might be hurt for me. *Chapman.*

If I had not *unwarily* engaged myself for the present  
publishing it, I should have kept it till I had looked  
over it. *Digby.*

By such principles, they renounce their legal claim  
to liberty and property, and *unwarily* submit to what  
they really abhor. *Fresholder.*

**UNWARLIKE**, *adj.* Not fit for war; not used  
to war; not military.

Avert *unwarlike* Indians from his Rome,  
Triumph abroad, secure our peace at home. *Dryden.*

**UNWARNED**, *adj.* Not cautioned; not made  
wary.

May hypocrites,  
That silyly speak one thing, another think,  
Drink on *unwarned*, till by enchanting cups  
Infatuate, they their wily thoughts disclose! *Philips.*

**UNWAR'ANTED**, *adj.* } Not ascertained;  
**UNWAR'RANTABLE**, } uncertain; not de-  
**UNWAR'RANTABLY**, *adv.* } fensible; not al-  
lowed: the adverb corresponding.

The subjects of this kingdom believe it is not legal  
for them to be enforced to go beyond the seas, without  
their own consent, upon hope of an *unwarranted* con-  
quest; but, to resist an invading enemy, the subject  
must be commanded out of the counties where they in-  
habit. *Bacon.*

He who does an *unwarrantable* action through a false  
information, which he ought not to have believed, can-  
not in reason make the guilt of one sin the excuse of  
another. *South.*

A true and humble sense of your own unworthiness  
will not suffer you to rise up to that confidence which  
some men *unwarrantably* pretend to, nay, *unwarranta-  
bly* require of others. *Wake.*

**UNWARY**, *adj.* } Wanting caution; im-  
**UNW'ARILY**, *adv.* } prudent; hasty; precipi-  
**UNW'ARINESS**, *n. s.* } tate: the adverb and noun  
substantive corresponding.

All in the open hall amazed stood,  
At suddenness of that *unwary* sight,  
And wondered at his breathless hasty mood. *Spenser.*

Propositions about religion are insinuated into the  
*unwary* as well as unbiassed understandings of chil-  
dren, and riveted there by long custom. *Locke.*

The same temper which inclines us to a desire of  
fame, naturally betrays us into such slips and *unwari-  
nesses*, as are not incident to men of a contrary dispo-  
sition. *Spectator.*

**UNWASH'ED**, *adj.* } Not washed; not  
**UNWASH'EN**. } cleansed by washing.  
To eat with *unwashed* hands defileth not a man.  
*Matt. xv.*

Another lean *unwashed* artificer  
Cuts off his tale, and talks of Arthur's death. *Shak.*

**UNWASTED**, *adj.* } Not consumed; not di-  
**UNWAST'ING**. } minished: not decaying  
or lessening.

Why have those rocks so long *unwasted* stood,  
Since, lavish of their stock, they through the flood  
Have, ages past, their melting crystal spread,  
And with their spoils the liquid regions fed? *Blackm.*

Purest love's *unwasting* treasure;  
Constant faith, fair hope, long leisure;  
Sacred Hymen! these are thine. *Pope.*

**UNWAY'ED**, *adj.* Not used to travel; not  
seasoned in the road.

Beasts that have been rid off their legs are as much  
for a man's use as colts that are *unwayed*, and will not  
go at all. *Suckling.*

**UNWEAK'ENED**, *adj.* Not weakened.  
By reason of the exsuction of some air out of the  
glass, the elastical power of the remaining air was very  
much debilitated, in comparison of the *unweakened*  
pressure of the external air. *Boyle.*

**UNWEA'PONED**, *adj.* Not furnished with  
offensive arms.

As the beasts are armed with fierce teeth, paws,  
horns, and other bodily instruments of much advan-  
tage against *unweaponed* men; so hath reason taught  
man to strengthen his hands with such offensive arms  
as no creature else can well avoid. *Raleigh.*

**UNWEA'RY**, *v. a.* } To refresh after wear-  
**UNWEA'RIABLE**, *adj.* } ness: not to be tired or  
**UNWEA'RIED**. } wearied; not fatigued.  
Desire to resemble him in goodness, maketh them  
*unweariable*. *Hooker.*

Godlike his *unwearied* bounty flows;  
First loves to do, then loves the good he does.

Their bloody task *unwearied* still they ply. *Denham.*  
*Waller.*



It *unwearies* and refreshes more than any thing, after too great labour. *Temple.*

**UNWED', adj.** Unmarried.

This servitude makes you to keep *unwed*. *Shaksp.*

**UNWEDGEABLE, adj.** Not to be cloven.  
Merciful heaven ;

Thou rather with thy sharp and sulph'rous bolt  
Split'st the *unwedgeable* and gnarled oak,  
Than the soft myrtle. *Shakspere.*

**UNWEED'ED, adj.** Not cleared from weeds.

Fie ! 'tis an *unweeded* garden,  
That grows to seed ; things rank, and gross in nature,  
Possess it merely. *Shakspere.*

**UNWEEP'ED, adj.** Not lamented. Now un-  
wept.

He must not float upon his watry bier  
*Unwept*, and welter on the parching wind,  
Without the meed of some melodious tear. *Milton.*

**UNWEETING, adj.** Ignorant ; unknowing.  
Obsolete.

Her seeming dead he found with feigned fear,  
As all *unweeting* of that well she knew ;  
And pained himself with busy care to rear  
Her out of careless swoon. *Spenser.*

**UNWEIGH'ED, adj.** } Not examined by the  
**UNWEIGH'ING.** } balance ; not considered :  
inconsiderate.

Solomon left all the vessels *unweighed*, because they  
were exceeding many. *1 Kings vii.*

Wise ? why, no question but he was,—a very super-  
ficial, ignorant, *unweighing* fellow. *Shakspere.*

Daughter, what words have passed thy lips *un-  
weighed* ?

Deem not unjustly by my doom oppress,  
Of human race the wisest and the best. *Pope.*

**UNWEL'COME, adj.** Not pleasing ; not  
grateful ; not well received.

Such welcome and *unwelcome* things at once  
'Tis hard to reconcile. *Shakspere.*

*Unwelcome* freedom, and unthanked relieve !  
*Dryden.*

**UNWEPT, adj.** Not lamented ; not bemoaned.  
We, but the slaves that mount you to the throne  
A base, ignoble crowd, without a name ;  
*Unwept*, unworthy of the funeral flame ;  
By duty bound to forfeit each his life. *Dryden.*

**UNWET, adj.** Not moist.

Once I meant to meet  
My fate with face unmoved, and eyes *unwet* ;  
Yet, since I have thee here in narrow room,  
My tears shall set thee first afloat within thy tomb.  
*Dryden.*

**UNWHIPT, adj.** Not punished ; not cor-  
rected with the rod.

Once I caught him in a lie ;  
And then, *unwhipt*, he had the sense to cry. *Pope.*

**UNWHOLE'SOME, adj.** Insalubrious ; mis-  
chievous to health ; tainted.

We'll use this *unwholesome* humidity ; this gross,  
watry pumpkin : we'll teach him to know turtles from  
jays. *Shakspere.*

The discovery of the disposition of the air is good for  
the prognosticks of wholesome and *unwholesome* years.  
*Bacon.*

**UNWIELD'Y, adj.** } Unmanageable ; not  
**UNWIELD'LY, adv.** } easily moving or moved ;  
**UNWIELD'INESS, n. s.** } ponderous : the adverb  
and noun substantive correspond.

To what a cumbersome *unwieldiness*,  
And burdensome corpulence, my love had grown,  
But that I made it feed upon  
That which love worst endures—discretion ! *Donne.*

An ague, meeting many humours in a fat *unwieldy*  
body of fifty-eight years old, in four or five fits carried  
him out of the world. *Clarendon.*

**UNWILL'ING, adj.** } Loath ; not con-  
**UNWILL'INGLY, adv.** } tented ; not inclined :  
**UNWILL'INGNESS, n. s.** } the adverb and noun  
substantive corresponding.

Obedience, with professed *unwillingness* to obey, is  
no better than manifest disobedience. *Hooker.*

If thou dost find him tractable,  
Encourage him, and tell him all our reasons :

If he be leaden, icy, cold, *unwilling*,  
Be thou so too. *Shakspere.*

A feast the people hold to Dagon, and forbid  
Laborious works, *unwillingly* this rest  
Their superstition yields. *Milton.*

There is in most people a reluctance and *unwilling-  
ness* to be forgotten. We observe, even among the  
vulgar, how fond they are to have an inscription over  
their grave. *Suiff.*

**UNWIND', v. a. & v. n.** *Pret. and part. pass.*  
unwound. To separate any thing convolved ; to  
untwist : be untwisted or admit evolution.

All his subjects having by some years learned so to  
hope for good and fear harm, only from her, that it  
should have needed a stronger virtue than his, to have  
*unwound* so deeply an entered vice. *Sidney.*

As you *unwind* her love from him,  
Lest it should ravel, and be good to none,  
Bottom it on me. *Shakspere.*

Put the bottoms into clean scalding water, and they  
will easily *unwind*. *Mortimer.*

**UNWIPE'D, adj.** Not cleaned by rubbing.  
Their hands and faces were all badged with blood,  
So were their daggers, which *unwiped* we found  
Upon their pillows. *Shakspere.*

**UNWISE, adj.** } Weak ; defective in wis-  
**UNWISELY, adv.** } dom : the adverb correspond-  
ing.

O good, but most *unwise* patricians ! why,  
You grave, but reckless senators, have you thus  
Given Hydra here to chuse an officer ? *Shakspere.*

*Unwisely* we the wiser east  
Pity, supposing them oppressed  
With tyrant's force. *Waller.*

This the Greek say, this, the barbarians ; the wise  
and the *unwise*. *Tillotson.*

**UNWISH, v. a.** To wish that which is not to be.

My liege, would you and I alone,  
Without more help, could fight this royal battle.  
—Why now thou hast *unwished* five thousand men ;  
Which likes me better than to wish us one. *Shaksp.*

To desire there were no God, were plainly to *unwish*  
their own being, which must be annihilated in the sub-  
straction of that essence which substantially supporteth  
them. *Browne.*

While heaping *unwished* wealth I distant roam,  
The best of brothers at his natal home,  
By the dire fury of a traitress wife,  
Ends the sad evening of a stormy life. *Pope.*

**UNWIT, v. a.** To deprive of understanding.  
Not-us d.

Friends all but now ; even now  
In quarter, and in terms like bride and groom  
Divesting them for bed ; and then but now,  
As if some planet had *unwitted* men,  
Swords out, and tilting one at other's breast. *Shaksp.*

**UNWITHDRAWING, adj.** Continually li-  
beral.

Wherefore did Nature pour her bounties forth,  
With such a full and *unwithdrawing* hand,  
Covering the earth with odours, fruits, and flocks ?  
*Mil on.*

**UNWITHSTOOD',** *adj.* Not opposed.

*Cressy plains.*

And Agincourt, deep tinged with blood, confess  
What the Silures vigour *unwithstood*  
Could do in rigid fight.

*Philips.*

**UNWITNESSED',** *adj.* Wanting testimony; wanting notice.

Let their zeal to the cause should any way be *unwitnessed*.

*Hooker.*

**UNWITTINGLY',** *adv.* Properly unwittingly, from unwitting. Without knowledge; without consciousness.

In these fatal things it falls out that the high-working powers make second causes *unwittingly* accessory to their determinations.

*Sidney.*

Those things are termed most properly natural agents, which keep the law of their kind *unwittingly*, as the heavens and elements of the world, which can do no other wise than they do.

*Hooker.*

**UNWONTED',** *adj.* Uncommon; unusual; rare; unaccustomed.

His sad, dull eyes, sunk deep in hollow pits,  
Could not endure the 'unwonted sun to view.

*Spenser.*

O how oft shall he  
On faith and changed gods complain; and seas,  
Rough with black winds and storms,  
*Unwonted* shall admire.

*Milton.*

Every *unwonted* meteor is portentous, and some divine prognostick.

*Glennville.*

**UNWORKING',** *adj.* Living without labor.

Lazy and *unworking* shopkeepers in this being worse than gamesters, do not only keep so much of the money of a country in their hands, but make the publick pay them for it.

*Locke.*

**UNWORSHIPPED',** *adj.* Not adored.

He resolved to leave

*Unworshipped*, unbeyed, the throne supreme.

**UNWORTHY',** *adj.*

} Not deserving (when  
UNWORTHILY, *adv.* } their good or bad); not  
UNWORTHINESS, *n. s.* } suitable; unbecoming:  
the adverb and noun substantive correspond.

Tell me, Philoclea, did you ever see such a shepherd? did you ever hear of such a prince? and then tell me if a small or *unworthy* assault have conquered me?

*Sidney.*

Every particular accident, not *unworthy* the remembrance, for brevity I wittingly pass over.

*Knolles.*

Are there *unworthy* men chosen to offices?

*Whitgift.*

I vowed, base knight,

To tear the garter from thy craven leg,  
Which I have done, because *unworthily*

Thou wast installed.

*Shakespeare. Henry VI.*

Degree being vizarded,

The 'unworthiest shews as fairly in the mask.

*Shakspeare.*

I feared to find you in another place;

But, since you're here, my jealousy grows less:

You will be kind to my *unworthiness*.

*Dryden.*

Care is taken to intersperse additions in such a manner that scarce any book can be brought, without purchasing something *unworthy* of the author.

*Swift.*

**UNWOUND',** *part. pass.* and *pret.* of unwind.

Untwisted.

Thatchers tie with withs, but old pitched ropes *unwound* are more lasting.

*Mortimer's Husbandry.*

**UNWOUNDED',** *adj.* Not wounded.

Oh blest with temper!

She who can love a sister's charms, or hear

Sighs for a daughter with *unwounded* ear.

*Pope.*

**UNWREATH',** *v. a.* To untwine.

The beards of wild oats, and of divers other wild plants, continually wreath and *unwreath* themselves, according to the temperature of the ambient air.

*Boyle.*

**UNWRITING',** *adj.* Not assuming the character of an author.

The peace of the honest *unwriting* subject was daily molested.

*Arbuthnot.*

**UNWRITTEN',** *adj.* Not written; not conveyed by writing; oral; traditional.

A rule of right *unwritten*, but delivered by tradition from one to another.

*Spenser.*

As to his understanding, they bring him in void of all notion, a rude, *unwritten* blank; making him to be created as much an infant, as others are born.

*South.*

**UNWROUGHT',** *adj.* Not labored; not manufactured.

Yet thy moist clay is pliant to command;  
*Unwrought* and easy to the potter's hand:

Now take the mold, now bend thy mind to feel  
The first sharp motions of the forming wheel.

*Dryden.*

**UNWRUNG',** *adj.* Not pinched.

We that have free souls, it touches us not; let the galled jade winch, our withers are *unwrung*.

*Shakspeare.*

**UNYIELD'ED',** *adj.* Not given up.

O'erpowered at length, they force him to the ground,  
*Unyielded* as he was, and to the pillar bound.

*Dryden.*

**UNYOKE',** *v. a.* } To loose from the yoke:  
**UNYOKED',** *adj.* } having never worn a yoke.

Our army is dispersed already:

Like youthful steers *unyoked*, they took their course  
East, west, north, south.

*Shakspeare. Henry IV.*

Seven bullocks yet *unyoked* for Phœbus chuse,  
And for Diana seven unspotted ewes.

*Dryden.*

**UNZONED',** *adj.* Not bound with a girdle.

Easy her motion seemed, serene her air;  
Full, though *unzoned*, her bosom.

*Prior.*

**VOCABULARY',** *n. s.* *Fr. vocabulaire; Latin vocabularium.* A dictionary; a lexicon; a word-book.

Some have delivered the polity of spirits, and that they stand in awe of conjurations, which signify nothing, not only in the dictionary of man, but in the subtler vocabulary of Satan.

*Broune.*

Among other books, we should be furnished with *vocabularies* and dictionaries of several sorts.

*Watts.*

**VOCAL',** *adj.* } French *vocal*; Latin *vocalis*.

**VOCALITY',** *n. s.* } Having a voice; uttered or

**VOCALIZE',** *v. a.* } formed by the voice: *vocality*

**VOCALLY',** *adv.* } is power of utterance; capability of being uttered by the voice: to vocalize is to form into voice: *vocally* is in words; articulately.

They which require the abrogation of instrumental music, approving nevertheless the use of *vocal* melody to remain, must shew some reason.

*Hooker.*

Witness if I be silent morn or eve,

To hill, or valley, fountain, or fresh shade,

Made *vocal* by my song, and taught his praise.

*Milton.*

Although it is as natural to mankind to express their desires *vocally*, as it is for brutes to use their natural *vocal* signs; yet the forming of languages into this or that fashion is a business of institution.

*Hale.*

L and R being in extremes, one of roughness, the other of smoothness and freeness of *vocality*, are not easy in tract of *vocal* speech to be pronounced spiritaly.

*Holder.*

It is one thing to give an impulse to breath alone; another thing to *vocalize* that breath, i. e. in its passage through the larynx to give it the sound of human voice.

*Id.*

Memnon, though stone, was counted *vocal*;

But 'twas the god, mean while, that spoke all

Rome oft has heard a cross haranguing,

With prompting priest behind the hanging.

*Prior.*



**VOCATION**, *n. s.* Fr. *vocation*; Lat. *vocatio*. Calling; summons; calling by the will of God.

He would think his service greatly rewarded, if he might obtain by that means to live in the sight of his prince, and yet practice his own chosen *vocation*.

Sidney.

They which thus were in God eternally, by their intended admission to life, have, by *vocation* or adoption, God actually now in them.

Hooker.

God has furnished men with faculties sufficient to direct them in the way they should take, if they will seriously employ them, when their ordinary *vocations* allow them the leisure.

Locke.

**VOCIFERATION**, *n. s.* Lat. *vocifero*. Clamorous, *adj.* } mor; outcry: the adjective corresponding.

Thrice three *vociferous* heralds rose to check the rout.

Chapman.

The lungs, kept too long upon the stretch by *vociferation*, or loud singing, may produce the same effect.

Arbutnot.

Several templars, and others of the more *vociferous* kind of critics, went with a resolution to hiss, and confess they were forced to laugh.

Pope.

**VOETIUS** (Gisbert), an eminent divine of the sixteenth century, was professor of divinity of the Oriental tongues at Utrecht, where he was also minister. He assisted at the synod of Dort; and died 1676, aged eighty-seven. He wrote a great number of works; and was the declared enemy of Des Cartes and his philosophy. His followers are called Voetians.

**VOETIUS** (Daniel and Paul), sons of the above, also wrote several works.

**VOETIUS** (John), LL. D., the son of Paul, was professor of law at Herborn; he wrote a commentary on the pandects, which is esteemed, and other works on law.

**VOGUE**, *n. s.* Fr. *vogue*, from *voguer*; Italian *voga*. Fashion; mode.

Use may revive the obsolete words,  
And banish those that now are most in *vogue*.

Roscommon.

In the *vogue* of the world, it passes for an exploit of honour, for kings to run away with whole countries that they have no pretence to.

L'Estrange.

No periodical writer, who always maintains his gravity, and does not sometimes sacrifice to the Graces, must expect to keep in *vogue* for any time.

Addison.

**VOICE**, *n. s.*, *v. a.*, &c. Fr. *voix*; Latin *vox*.

**VOIC'ED**, *adj.* [*v. n.*] Sound emitted by the mouth, or breath; vote; suffrage; expression of opinion: to voice is to murmur; report; vote: to clamor: voiced, furnished with a voice; voted.

The state was betrayed by the multitude and corruption of *voices*.

Knolles.

Are you all resolved to give your *voices*?  
But that's no matter, the greater part carries it.

Shakespeare.

Is this the Athenian minion, whom the world  
Voiced so regardfully?

Id.

Stir not questions of jurisdiction; and rather assume thy right in silence, than *voice* it with claims.

Bacon.

It was *voiced* that the king purposed to put to death Edward Plantagenet, prisoner in the Tower; whereat there was great murmur.

Id. Henry VII.

I assay to see  
The works of men; or heare mortalitie  
Expire a *voice*.

Chapman.

Some laws ordain, and some attend the choice,  
Of holy senates, and elect by *voice*.

Dryden.

It is not the gift of every person to harangue the multitude, to *voice* it loud and high.

South.

O Mareus, I am warmed; my heart  
Leaps at the trumpet's *voice*, and burns for glory.

Addison.

A **VOICE** is a sound produced in the throat and mouth of an animal, by an apparatus of instruments of that purpose. Voices are either articulate or inarticulate. 1. Articulate voices are those whereof several conspire together to form some assemblage or little system of sounds: such are the voices expressing the letters of an alphabet, numbers of which joined together form words. 2. Inarticulate voices are such as are not organised, or assembled into words; such is the barking of dogs, the braying of asses, the hissing of serpents, the singing of birds, &c. The formation of the human voice, with all the varieties thereof observed in speech, music, &c., makes a very curious article of enquiry; and the apparatus and organism of the parts of administering thereto is something exceedingly surprising. Those parts are the trachea or wind-pipe, through which the air passes and repasses into the lungs; the larynx, which is a short cylindrical canal at the head of the trachea; and glottis, which is a little oval cleft or chink left between two semi-circular membranes stretched horizontally within-side the larynx; which membranes, though capable of joining close together, do generally leave an interval, either greater or less, between them, called the glottis. For a particular description of each part, see ANATOMY.

**VOICE**, in grammar, a circumstance in verbs whereby they become to be considered as either active or passive, i. e. either expressing an action impressed on another subject, as, I beat; or, receiving it from another, as, I am beaten.

**VOID**, *adj.*, *n. s.*, *v. a.*, &c. Fr. *vide*. Empty;

**VOID'ABLE**, *adj.* [*v. n.*]

**VOIDANCE**, *n. s.*

**VOIDER**,

**VOIDNESS**.

empty; annul; emit: to be, or receive what is, emitted: voidable is such as may be annulled: voidance, the act of emptying; ejection from a benefice: voider, a basket to carry off broken meat: voidness, emptiness; vacuity; nullity.

The earth was without form and *void*, and darkness was upon the face of the deep.

Genesis, i. 2.

My word shall not return *void* unto me. Is. lv. 11.

If it be *void*, and to no purpose, that the names of men are so frequent in their books, what did move them to bring them in?

Hooker.

If they will fight with us, bid them come down,  
Or *void* the field.

Shakespeare. Henry V.

How in our *voiding* lobby hast thou stood,

And duly waited for my coming forth? Id. Hen. VI.

This custom made their whole government *void*, as an engine built against human society, worthy to be fired and pulled down.

Bacon.

Excrements smell ill to the same creature that *voideth* them.

Id.

Towards this passage, somewhat darker than the chamber which he *voided*, this assassinate gave him, with a back blow, a deep wound into his left side.

Watson's Buckingham.

If thereby you understand their nakedness and *voidness* of all mixed bodies, good divines are of opinion that the work of the creation was not in itself distinguished by days.

Hakewill.

A *voider* for the nonce,

I wrong the devil should I pick their bones.

Cleaveland.

It was become a practice, upon any specious pretences, to *void* the security that was at any time given for money so borrowed.

Clarendon.

By the use of emulsions, and frequent emollient injections, his urine voided more easily. *Wiseman.*

With what power

Were first the unwieldy planets launched along  
The' illimitable void? *Thomson.*

**VOITURE**, *n. s.* Fr. *voiture*. Carriage; transportation by carriage. Not in use.

They ought to use exercise by *voiture* or carriage. *Arbuthnot.*

**VOLANT**, *adj.* Fr. *volant*; Lat. *volans*. Flying; passing through the air: nimble.

The *volant*, or flying automata, are such mechanical contrivances as have a self-motion, whereby they are carried aloft in the air like birds. *Wilkins.*

His *volant* touch

Instinct through all proportions, low and high,  
Fled, and pursued transverse the resonant fugue. *Milt.*

**VOLATILE**, *adj. & n. s.*

**VOLATILENESS**, *n. s.*

**VOLATILITY**,

**VOLATILIZATION**,

**VOLATILIZE**, *v. a.*

a winged animal: the three substantives following correspond: to volatilize is, to make volatile; subtilize.

The caterpillar towards the end of summer watheth *volatile*, and turneth to a butterfly. *Bacon.*

Of *volatility* the utmost degree is, when it will fly away without returning. *Id.*

In vain, though by their powerful art they bind  
*Volatile* Hermes. *Milton.*

The animal spirits cannot, by reason of their subtilty and *volatileness*, be discovered to the sense. *Hale.*

The air conveys the heat of the sun, maintains fires, and serves for the flight of *volatiles*. *Browne.*

Chemists have, by a variety of ways, attempted in vain the *volatilization* of the salt of tartar. *Boyle.*

When arsenick with soap gives a regulus, and with mercury sublimate a *volatile* fusible salt, like butter of antimony; doth not this show that arsenick, which is a substance totally *volatile*, is compounded of fixed and *volatile* parts. *Newton.*

Spirituos liquors are so far from attenuating, *volatilizing*, and rendering perspirable the animal fluids, that they rather condense them. *Arbuthnot.*

**VOLATILE**, in physics, is commonly used to denote a mixed body whose integrant parts are easily dissipated by fire or heat; but it is more properly used for bodies whose parts are easily separated from each other and dispersed in air.

**VOLATILE ALKALI**, called in the new French nomenclature ammonia, one of the three alkaline salts. See **ALKALI**.

**VOLCANO**, *n. s.* Ital. from *Vulcan*. A burning mountain.

Navigators tell us there is a burning mountain in an island, and many *volcanos* and fiery hills. *Browne.*

Subterraneous minerals ferment, and cause earthquakes, and cause furious eruptions of *volcanos*, tumble down broken rocks. *Bentley.*

Why want we then encomiums on the storm,  
Or famine, or *volcanos*? They perform  
Their mighty deeds; they hero-like can slay,  
And spread their ample deserts in a day. *Young.*

**VOLCANO**, is a name given to burning mountains, or to vents for subterranean fires. The number of volcanoes with which we are at present acquainted is very considerable; and it is remarkable that all the volcanoes with which we are acquainted, four or five perhaps excepted, are situated at a small distance from the sea. Most of them have been burning from time immemorial; some few, however, have burst out in our time. Volca-

noes all occupy the tops of mountains; we find none of them in plains; some of them, indeed, which are situated in the ocean, do not rise much above the surface; but even these volcanoes seem to be the apices of mountains, the greater part of which are covered by the sea. The substances ejected by volcanoes are fixed and inflammable air, water, ashes, pumice-stones, stones that have undergone no fusion, and lava. The phenomena which take place during the eruptions of volcanoes have been so fully described under the articles *ÆTNA*, *HECLA*, *ICELAND*, and *VESUVIUS*, that a repetition of this kind here will not be expected. All that remains, therefore, is to mention some of the opinions of philosophers concerning the causes of volcanoes. The most elaborate theory, perhaps, that has yet appeared is that of M. Houel.

According to him water is necessary for the formation of volcanoes. All volcanoes are near the sea; they are even extinguished when the sea retires from them; for we can still perceive the craters of volcanoes in several lofty inland mountains, which discover what they have been formerly. He supposes that a long series of ages was necessary for the formation of a volcano, and that they were all formed under the surface of the sea. The first explosion which laid open the foundations of the deep would possibly be preceded by an earthquake. The waters would be parted by a vast globe of burning air, which would issue forth with a tremendous noise, opening at the same time a large and wide vent for the immense flame that was to follow; and which, as it issued from the bottom of the sea, would be spread over its surface by the first gusts of wind which followed. A fire which was to burn through thousands of years could not be faint or feeble when it was first lighted up. Its first eruptions therefore have undoubtedly been very violent, and the ejected matter very copious. For a long series of ages it would continue to discharge torrents of lava from the bosom of its native earth, and its first crater would be composed of the fragments of the same earth. Thus, according to our author, the foundations of the burning mountain would be laid in the bottom of the sea; and even then it would have a hollow cup or crater on the top, similar to that which is to be found on all volcanoes at present. But the question now very naturally occurs, by what means was the internal fire preserved from extinction by the waters of the ocean, which must thus have been incumbent upon it? To this he replies that 'the fire, having disposed the substances in fusion to make an eruption, next laid open the earth, and emitted as much matter as it could discharge, with force sufficient to overcome the resistance of the column of water which would oppose its ascent; but, as the strength of the fire diminished, the matter discharged was no longer expelled beyond the mouth, but, by accumulating there, soon closed up the orifice. Thus only small orifices would be left, sufficient for giving vent to the vapors of the volcano, and from which only small bubbles of air could ascend to the surface of the water, until new circumstances, such as originally gave occasion to the eruption of the volcano, again took place in the bowels of the earth, and produced new eruptions either through the same or other mouths. The appearance of the sea over the new formed volcano, in its state of tranquillity, would then be similar to what it is betwixt the islands of Basilizzo and Pariaria. Columns of air



bubbles are there ascending at the depth of more than thirty feet, and burst on their arriving at the surface. This air would continue to disengage itself with little disturbance as long as it issued forth only in small quantity, until, at the very instant of explosion, when prodigious quantities, generated in the burning focus, would make their way all at once; and the same phenomena which originally took place would again make their appearance.' A volcano, while under water, cannot act precisely as it does in the open air. Its eruptions, though equally strong, cannot extend to so great a distance. The lava accumulates in greater quantity round the crater; the sands, ashes, and pozzolano, are not carried away by the winds, but are deposited around its edges, and prevent the marine substances which are driven that way by the waters from entering. Thus they agglomerate with these bodies, and thus a pyramidal mount is formed of all the materials together. In this manner Mr. Houel supposes that the mountain was gradually raised out of the sea by the accumulation of lava, &c., at every eruption, and that the cavern of the volcano was gradually enlarged, being driven down into the bottom of the cavern by the continued action of the stones which the volcano is constantly throwing up; that it was there fused, and at last thrown out at the top of the mountain to accumulate on its sides. Mr. Houel's opinion about the volcanic fire we shall give in his own words:—'We cannot form any idea of fire subsisting alone, without any pabulum, and unconnected with any other principle. We never behold it but in conjunction with some other body, which nourishes and is consumed by it. The matter in fusion, which issues from the focus, is but the incombustible part of that which nourishes the fire, and into the bosom of which that active principle penetrates in search of pabulum. But, as the fire acts only in proportion to the facility with which it can dissolve and evaporate, I am of opinion that it is only the bottom of the volcano on which it acts; and that its action extends no farther than to keep these substances which it has melted in a constant state of ebullition. That fusible matter being discharged from the mouth of the volcano, and hardening as it is gradually cooled by the action of the air, produces that species of stones which are distinguished by the name of lavas. This lava, even when in the focus, and in a state of fluidity, must also possess a certain degree of solidity, on account of the gravity and density of its particles. It therefore opposes the fire with a degree of resistance which irritates it, and requires, to put it into a state of ebullition, a power proportioned to the bulk of the mass. That quantity of matter, when dissolved by the action of the fire, must constantly resemble any other thick substance in a state of ebullition. Small explosions are produced in various parts over the surface of every such substance while in a state of ebullition; and, by the bursting of these bubbles, a great number of small particles are scattered around. This is the very process carried on in the focus of a volcano, though on a scale immensely more large; and the vast explosions there produced expel every body which lies in their way with the utmost violence; nor is there any piece of lava which falls down from the upper part of the arch of weight sufficient to resist this violent centrifugal force. No estimate can be made of the power of these explosions but by observing the obstacles they overcome, and what

enormous bodies are raised up and thrown to an immense height and distance. Such vast pieces of lava are to be seen on the top of Vesuvius and Lipari, that the projectile force by which they have been thrown out appears altogether incredible. No person can harbour the least suspicion of their having been laid there by any human power; and the appearance of them demonstrates that they have been ejected from the bottom of the volcano not in a state of fusion, but coherent and solid. A piece of lava lies on the top of *Ætna* of more than a cubic fathom in bulk, and whose weight therefore cannot be less than sixteen tons. What an amazing force then must it have required not only to raise this enormous mass from the volcanic focus, but to make it describe a parabola of about a league in diameter after it had come out of the crater! When we consider how much the volcanic focus is sunk below the base of the mountain, that the mountain itself is 10,000 feet high, and that consequently there must have been a power sufficient to raise such a mass 12,000 feet perpendicular, the boldest imagination must be lost in amazement. This may serve to give us some idea of the nature of that power which operates in the foci of volcanoes; a power which is unknown and inconceivable, and may justly be reckoned among the mysteries of nature.' The pabulum, by which the internal life is supported, Mr. Houel thinks to be substances contained in the mountain itself, together with bitumen, sulphur, and other inflammable materials, which may from time to time flow into the focus of the volcano in a melted state through subterranean ducts, and the explosions he ascribes to water making its way in the same manner. The water is converted into steam, which fills the cavern and pushes the melted lava out at the crater: this opinion is corroborated by the copious smoke which always precedes an eruption. But, combined with the water, there is always a quantity of other substances whose effects precede, accompany, or follow the eruptions, and produce all the various phenomena which they display. The eruption of water from *Ætna* in the year 1775 proceeded undoubtedly from this cause. The sea, or some of the reservoirs in *Ætna* or the adjacent mountains, by some means discharged a vast quantity of water into the focus of the volcano. That water was instantly resolved into vapor, which presently filled the whole cavern, and issued from the mouth of the crater. As soon as it made its way into the open atmosphere it was condensed again into water, which streamed down the sides of the mountain in a dreadful and destructive torrent. Thus we have given a view of Mr. Houel's theory, according to which volcanoes originally began at the bottom of the sea; and not only the mountain, but all the adjoining country was formed by successive eruptions. It is rather a theory of mountains raised by subterranean heat than of volcanoes, and does not attempt to explain the origin of the fire, which is the principal difficulty; neither does his theory account for the immense height to which matters are sometimes thrown during eruptions. This indeed it is impossible to account for without supposing that the resistance of the air is diminished. The excessive opposition of the atmosphere to bodies moving with very great degrees of velocity has been taken notice of under the article *PROJECTILES*. If it has so much effect then upon solid and round globes of iron, what ought it to be on irregular masses of rock or streams of liquid lava?



Nevertheless in the great eruption of Vesuvius, in 1779, Sir William Hamilton informs us that a vast stream of lava was projected to the height of at least 10,000 feet above the top of the mountain. Had the air resisted this liquid matter as it does a cannon-ball, it must have been dashed in pieces almost as soon as it issued from the crater. Either the extreme heat of the lava, therefore, or some other cause, must have contributed very much to diminish, or rather in a manner to annihilate, the resistance of the atmosphere at that time. As for the lighter materials, though they may be supposed to be carried to a vast distance by the wind, after being projected to a great height in the air, it is inconceivable how their motion was not suddenly stopped, and they scattered all around the top of the volcano by the violence of the blast. Substances of this kind, when quietly carried up with smoke, will indeed fly to a great distance; for we are assured that the ashes of the great fire at London, in 1666, were carried by the wind to the distance of sixteen miles. It is therefore the less incredible that those of the great eruption of Vesuvius, in 1779, should be carried to the distance of 100 miles, as we are informed was the case. To account for the volcanic fire Dr. Woodward and others have had recourse to the hypothesis of a central fire, to which the volcanoes are only so many chimneys or spiracles. Dr. Hutton, in his theory of the earth, adopts the same opinion; but, as it did not immediately concern the subject of which he treated, he evades any question concerning its origin by declaring himself satisfied of its existence without any enquiry into its origin. Others, as Dr. Lister, have had recourse to the well known experiment of the fermentation of sulphur and iron, which will take fire when mixed in considerable quantity and moistened with water. Pyrites, therefore, which are a natural mixture of these two substances, it is supposed, may naturally give rise to volcanoes. Instances are indeed adduced which undeniably prove that these substances will spontaneously take fire when thrown together in large heaps. Beds of pyrites, therefore, taking fire in the earth by means of a fermentation occasioned by water, are now generally supposed to be the cause of volcanoes; and the observation that volcanoes are generally near the sea is thought to confirm this hypothesis. When the matter is properly considered, however, it must be evident that neither of these hypotheses can answer the purpose. The central fire of Dr. Woodward and others is a cause too magnificent even for volcanoes. If any such fire is supposed, we must imagine a burning globe in the centre of the earth, whose heat is sufficient to vitrify the most solid and refractory terrestrial substances. But of what dimensions are we to suppose this globe? Is it one, two, three, four, or more thousands of miles in diameter? Very large indeed it must be; for we could scarcely suppose that stones could be projected even from the depth of 500 miles into the air. But even this supposition is inadmissible; for, as the fire of volcanoes is at times exceedingly augmented from some cause or other, were this cause general, as it must be in case of a burning central globe, the whole number of volcanoes existing on earth would be in a state of eruption at once. Besides if we were to suppose a burning globe of 7000 miles in diameter to suffer the least dilatation throughout its vast bulk, which must be the undoubted consequence of an

augmentation of heat from any unknown cause, all the volcanoes in the world would not be sufficient to give vent to it, though they should spout forth incessant cataracts of lava for centuries together. A dissolution of the whole globe must therefore undoubtedly take place; and, though we should lessen the diameter of our burning globe by 1000 miles, our difficulties will be as far from being removed as before. We must have recourse then to some operation by which we know that nature can kindle and extinguish fires occasionally; and, if we can suppose such an operation to take place in the bowels of the earth, we may then reasonably conclude that we have discovered a cause adequate to the production of volcanoes. Such a cause, however, cannot be pyrites, sulphur, or nitre, in any quantity, under the surface of the earth. It is impossible that beds of pyrites can remain for thousands of years under the same part of the surface of the earth, be occasionally inflamed and ejected, and afterwards undergo a renovation, to enable them to go through a similar operation. Nitre is never found in a fossil state; nor can it be inflamed in such a manner as to make any considerable explosion without a thorough mixture with sulphur and charcoal; neither would all the quantity which we can suppose to exist under the base of any mountain in the world, be sufficient to give force to one of those dreadful volleys which are discharged by volcanoes a hundred times in a day. Besides, neither pyrites nor sulphur can be inflamed without access of air; which cannot take place in the bowels of the earth; for it must be remembered, that the first question is concerning the means by which the fire was originally kindled. Most writers, however, seem to overlook this difficulty, and to be solicitous only about the immediate cause of the explosive force, which is generally ascribed to a steam of one kind or other. Mr. Houel in general calls it the force of fire, or of steam; though he does not enter very particularly into its nature. Mr. Whitehurst says that it is the force of 'fire and water, which is the primary agent in all such operations of nature.' He also gives a figure, showing how, by means of confined steam, a jet, either of hot water or of liquid fire, may be produced. But this applies only to a particular case, which we cannot suppose always to happen; but volcanoes are constantly attended with explosions; nay, so great is the tendency of volcanic matters to this violent operation, that many stones have been observed to burst in the air like bombs, after they were thrown out of the volcano; and Mr. Houel even informs us that such have burst three times during their flight. Water therefore cannot be always the cause of volcanic explosions. When thrown upon melted lead, salts, or especially copper, it explodes indeed with vast force. With the last mentioned metal it is peculiarly and incredibly violent; insomuch, that it is said that furnaces have been burst, and buildings thrown down, by the mere circumstance of some of the workmen spitting among the melted metal; and Mr. Whitehurst calculates the force of aqueous steam, when thus suddenly and violently heated, to be no less than twenty-eight times stronger than inflamed gunpowder. Many philosophers attempt to account for the origin and continuance of volcanoes by the agency of the electric fluid; but their theory is so ill supported by facts, that we think it superfluous to take up room with



it. It is certain that volcanoes exhibit many electrical appearances, and that great quantities of the electrical fluid are discharged at every eruption. But our knowledge of electricity is still too limited to draw any certain conclusion from these appearances.

Naturalists contend that all the southern islands have been volcanised; and they are seen daily to be formed by the action of these subterranean fires. The black color of the stones, their spongy texture, the other products of fire, and the identity of these substances with those of the volcanoes at present burning, are all in favor of the opinion that their origin was the same. When the decomposition of the pyrites is advanced, and the vapors and elastic fluids can no longer be contained in the bowels of the earth, the ground is shaken, and exhibits the phenomenon of earthquakes. Mephitic vapors are multiplied on the surface of the ground, and dreadful hollow noises are heard. In Iceland the rivers and springs are swallowed up; a thick smoke, mixed with sparks and lightning, is then disengaged from the crater; and naturalists have observed, when the smoke of Vesuvius takes the form of a pine, the eruption is near at hand.

To these preludes, which show the internal agitation to be great, and that obstacles oppose the issue of the volcanic matters, succeeds an eruption of stones and other products, which the lava drives before it; and, lastly, appears a river of lava, which flows out, and spreads itself down the side of the mountain. At this period the calm is restored in the bowels of the earth, and the eruption continues without earthquakes. The violent efforts of the included matter sometimes cause the sides of the mountain to open; and this is the cause which has successively formed the smaller mountains that surround volcanoes. Montenuovo, which is 180 feet high, and 3000 in breadth, was formed in a night. This crisis is sometimes succeeded by an eruption of ashes, which darkens the air. These ashes are the last result of the alteration of the coals; and the matter which is first thrown out is that which the heat has half vitrified. In the year 1767 the ashes of Vesuvius were carried twenty leagues out to sea, and the streets of Naples were covered with them. The report of Dion, concerning the eruption of Vesuvius in the reign of Titus, wherein the ashes were carried into Africa, Egypt, and Syria, seems to be fabulous.

M. de Saussure observes that the soil of Rome is of this character, and that the famous catacombs are all made in the volcanic ashes. It must be admitted, however, that the force with which all these products are thrown is astonishing. In the year 1769 a stone twelve feet high, and four in circumference, was thrown to the distance of a quarter of a mile from the crater: and in the year 1771 Sir William Hamilton observed stones of an enormous size, which employed eleven seconds in falling. This indicates an elevation of nearly 2000 feet.

The eruption of volcanoes is frequently aqueous; the water which is confined, and favors the decomposition of the pyrites, is sometimes strongly thrown out. Sea salt is found among the ejected matter, and likewise sal ammoniac. In the year 1630 a torrent of boiling water, mixed with lava, destroyed Portici and Torre del Greco. Sir W. Hamilton saw boiling water ejected. The springs of boiling water in Iceland, and all the hot springs which abound at the surface of the globe, owe their heat

only to the decomposition of pyrites. Some eruptions are of a muddy substance; and these form the tuffa and the pouzzolano. The eruption which buried Herculaneum is of this kind. Sir W. Hamilton found an antique head, the impression of which was well enough preserved to answer the purpose of a mould. Herculaneum, at the least depth, is seventy feet under the surface of the ground, and in many places 120.

The pouzzolano is of various colors. It is usually reddish, sometimes gray, white, or green: it frequently consists of pumice-stone in powder; but sometimes it is formed of oxidized clay. 100 parts of red pouzzolano afforded Bergmann silex 55, alumina 20, lime 5, iron 20. When the lava is once thrown out of the crater, it rolls in large rivers down the side of the mountain to a certain distance, which forms the currents of lava, the volcanic causeways, &c. The surface of the lava cools, and forms a solid crust, under which the liquid lava flows. After the eruption, this crust sometimes remains, and forms hollow galleries, which Messrs. Hamilton and Ferber have visited: it is in these hollow places that the sal ammoniac, the muriate of soda, and other substances, sublime. A lava may be turned out of its course by opposing banks or dykes against it: this was done in 1669 to save Catania; and Sir William Hamilton proposed it to the king of Naples to preserve Portici.

The currents of lava sometimes remain several years in cooling. Sir William Hamilton observed, in 1769, that the lava which flowed in 1766 was still smoking in some places. Lava is sometimes swelled up and porous. The lightest is called pumice-stone.

The substances thrown out by volcanoes are not altered by fire. They eject native substances, such as quartz, crystals of amethyst, agate, gypsum, amianthus, felspar, mica, shells, schorl, &c. The fire of volcanoes is seldom strong enough to vitrify the matters it throws out. We know only of the yellowish capillary and flexible glass thrown out by the volcanoes of the island of Bourbon, on the 14th of May 1766 (M. Commerson), and the lapis gallinaceus ejected by Hecla. Mr. Ego-frigouson, who is employed by the observatory at Copenhagen, has settled in Iceland, where he uses a mirror of a telescope which he has made out of the black agate of Iceland. The slow operation of time decomposes lavas, and their remains are very proper for vegetation. The fertile island of Sicily has been every where volcanised. Chaptal observed several ancient volcanoes at present cultivated; and the line which separates the other earths from the volcanic earth constitutes the limit of vegetation. The ground over the ruins of Pompeii is highly cultivated. Sir William Hamilton considers subterranean fires as the great vehicle used by nature to extract virgin earth out of the bowels of the globe, and repair the exhausted surface.

The decomposition of lava is very slow. Strata of vegetable earth, and pure lava, are occasionally found applied one over the other; which denote eruptions made at distances of time very remote from each other, since in some instances it appears to have required nearly 2000 years before lava was fit to receive the plough. In this respect, however, lavas differ very widely, so that our reasoning from them must at best be very vague. An argument has been drawn from this phenomenon to prove the antiquity of the globe; but the silence of the most



ancient authors concerning the volcanoes of the kingdom of France, of which we find such frequent traces, indicates that these volcanoes have been distinguished from time immemorial; a circumstance which carries their existence to a very distant period. Beside this, several thousand years of connected observations have not afforded any remarkable change in Vesuvius or Ætna: nevertheless these enormous mountains are all volcanised, and consequently formed of strata applied one upon the other. The prodigy becomes much more striking, when we observe that all the surrounding country, to very great distances, has been thrown out of the bowels of the earth.

The height of Vesuvius above the level of the sea is 3659 feet; its circumference 34,444. The height of Ætna is 10,036 feet; and its circumference 180,000.

The various volcanic products are applicable to several uses. 1. Pouzzolano is of admirable use for building in the water: when mixed with lime it speedily fixes itself; and water does not soften it, for it becomes continually harder and harder. Chaptal has proved that oxidized ochres afford the same advantage for this purpose: they are made into balls, and baked in a potter's furnace in the usual manner. The experiments made at Sette, by the commissary of the province, prove that they may be substituted with the greatest advantage instead of the pouzzolano of Italy. 2. Lava is likewise susceptible of vitrification; and in this state it may be blown into opaque bottles of the greatest lightness, which Chaptal says he has done at Erepian and at Alais. The very hard lava, mixed in equal parts with wood-ashes and soda, produced, he says, an excellent green glass. The bottles made of it were only half the weight of common bottles, and much stronger, as was proved by Chaptal's experiments, and those which M. Joly de Fleury ordered to be made under his administration. 3. Pumice stone likewise has its uses; it is more especially used to polish most bodies which are somewhat hard. It is employed in the mass or in powder, according to the intended purpose. Sometimes, after levigation, it is mixed with water to render it softer.

**VOLCANO**, an island of the Mediterranean, belonging to Sicily, the most southern of the Lipari group, lies between Lipari and the Sicilian coast, being separated from the former by a narrow channel. It consists of a single volcanic mountain, of rather more than half a mile in height, which descends by successive gradations till its circumference at the base is about twelve miles. A bright cloud seems to rest on it at night, produced by the smoke and vapor emitted from all parts of it. It is oval.

**VOLE**, *n. s.* *Fr. vole.* A deal at cards, that draws the whole tricks.

Past six, and not a living soul!  
I might by this have won a vole. *Swift.*

**VOLERY**, *n. s.* } *Fr. volerie*; *Lat. volito.* A  
**VOLITATION**. } flight of birds: the act or power of flight.

An old boy, at his first appearance, is sure to draw on him the eyes and chirping of the whole town volery; amongst which, there will not be wanting some birds of prey, that will presently be on the wing for him. *Loche.*

Birds and flying animals are almost erect, advancing the head and breast in their progression, and only prone in the act of volitation. *Browne.*

**VOLHYNIA**, an extensive government of Russia, lying to the east of the kingdom of Poland, between the governments of Grodno and Podolia. Its territorial extent is 29,300 square miles, and its population about 1,200,000, little more than half the number of Scotland on a surface of equal extent. While Poland was entire, Volhynia formed a province of that kingdom, which bordered with the Ukraine on the south-east. The soil is generally chalky, but in some places marshy, and in many a rich vegetable mould. The climate is in general temperate. Its produce consists in wheat, mullet and rye. Its pasturages are extensive.

Volhynia has often been exposed to the evils of invasion. In 1618 the Tartars made an incursion into it, carried off a great booty in cattle and other property, and led a number of the inhabitants into slavery. Since 1793 it has been in the possession of Russia. Its chief town Zytmiers.

**VOLITION**, *n. s.* } *Lat. volitio.* The act of  
**VOL'ITIVE**, *adj.* } willing; the power of choice exerted: having the power to will.

To say that we cannot tell whether we have liberty, because we do not understand the manner of volition, is all one as to say that we cannot tell whether we see or hear, because we do not understand the manner of sensation. *Wilkins.*

They not only perfect the intellectual faculty, but the volitive, making the man not only more knowing, but more wise and better. *Hume.*

There is as much difference between the approbation of the judgment, and the actual volitions of the will, as between a man's viewing a desirable thing with his eye, and reaching after it with his hand. *South.*

**VOLKAMERIA**, in botany, a genus of plants, in the class of didynamia, and order of angiospermia; ranking according to the natural method in the fortieth order, personatæ.

**VOLKOF** (Theodore), a Russian actor, born at Jaroslaf, in 1729. By frequenting the German theatre, he became fond of the stage. He set up a private one, wherein he performed with his brothers; which coming to the ears of the empress, Elizabeth, she invited him to Petersburg, and took him and his company into her service, whereby he soon made a fortune, and left a large estate. He died in 1763, aged only thirty-four.

**VOL'LEY**, *n. s. & v. n.* } *Fr. volée.* A flight of  
**VOL'LIED**, *adj.* } shot; a burst; sudden emission: to throw out: vollied is discharged in a volley.

A fine volley of words, gentlemen, and quickly shot off. *Shakspeare.*

The holding every man shall beat as loud  
As his strong sides can volley. *Id.*

From the wood a volley of shot slew two of his company. *Raleigh.*

I stood  
Thy fiercest, when in battle to thy aid  
The blasting vollied thunder made all speed. *Milton.*

Distrustful sense with modest caution speaks;  
It still looks home, and short excursions makes;  
But rattling nonsense in full volleys breaks. *Pope.*

**VOLNEY** (Constantine Francis Cnassebeuf), count de, a modern French writer, was born at Craon in Brittany, in 1755. He no sooner became master of a small patrimonial estate than he converted it into money, and embarked for the Levant. He travelled through various parts of Egypt and Syria; and, after a residence for some time in a Maronite convent on Mount Libanus, returned to France in about three years. The fruits of his enquiries appeared in his *Voyage en Syrie et en Egypte*,



2 vols. 8vo., which was translated into English, Dutch, and German. Taking up his residence at Auteuil, near Paris, he now became connected with some of the most eminent of his literary contemporaries; and on the convocation of the States-general, in 1789, was elected a deputy from the *Tiers Etat* of Anjou. He frequently appeared with advantage as a public speaker. In 1791 he published his *Ruines, ou Méditations sur les Révolutions des Empires*. On the conclusion of the sessions of the National Assembly, he accompanied M. Pozzo di Borgo to Corsica, where he had projected some agricultural improvements, and made attempts to establish in that island the cultivation of the sugar cane, indigo, and other tropical plants. Returning to Paris, after ten months' imprisonment, the fall of Robespierre restored him to liberty. In November 1794 he was appointed professor of history at the Normal School, and the course of lectures on the philosophy of history which he delivered added considerably to his reputation. In 1795 he made a voyage to the United States of America, where he experienced a flattering reception, and Volney would probably have settled in America, had not the prospect of a war with France induced him to return home. After the elevation of Buonaparte to the consulship, he was nominated a senator; and is said to have been offered the office of second consul. In the senate he cooperated with Lanjuinais, Cabanis, Destutt de Tracy, Collaud, Garat, and others, whose influence was constantly exerted in the cause of freedom. After the return of the king, Volney, by a decree of the 4th of June, 1814, was designated a member of the chamber of peers, where he always appeared among the ardent defenders of the rights of the nation. His death took place, after a short illness, at Paris, April 24th, 1820. Besides the works mentioned, he published *Simplification des Langues Orientales, ou Méthode nouvelle et facile d'apprendre les Langues Arabe, Persane, et Turque, avec les Caractères Européens*, 1795, 8vo.; *Tableau du Climat et du Sol de l'Amérique*, 1803, 2 vols. 8vo., with a Vocabulary of the Language of the *Miamis*; *Rapport fait à l'Académie Celtique sur l'Ouvrage Russe de M. le Professor Pallas, Vocabulaires comparés des Langues de toute la Terre*, 1805, 4to.; *Supplément à l'Herodote de Larcher, ou Chronologie d'Herodote conforme à son Texte*, 1808, 2 vols. 8vo.; *Questions de Statistique à l'Usage des Voyageurs*, 1813, 8vo.; *Recherches nouvelles sur l'Histoire Ancienne*, 1814—15, 3 vols. 8vo. Volney was a member of the Institute from its foundation; and he belonged to the Asiatic Society of Calcutta, and to several European literary associations.—*Biog. Nouv. des Contemp. Biog. Univ.*

VOLO, an ancient town of European Turkey, in Thessaly, situated on the gulf of Volo. Its population amounts to nearly 5000. Its harbour is large, and resorted to by vessels from Egypt, Candia, Smyrna, &c. In 1685 it was taken and partly destroyed by the Venetians. Thirty-eight miles north-west of Larissa.

VOLOGDA, a province of European Russia, lying to the south of that of Archangel, and to the east of those of Novgorod and Olonetz. It extends from long. 38° 20' to 49° 20' E., and from lat. 58° 30' to 65° N., being one of the largest but worst peopled governments of the empire; for, while its territorial extent is 149,000 square miles,

its population probably does not amount to 654,000. To the north we have all the severity of the frozen zone; the trees losing their leaves in August, and the rivers being frozen over from the end of October to the middle of April. In the south there are large tracts occupied by forests, lakes, and morasses. Mountains are rare, and, though agriculture is followed, the severity and changeable state of the weather render it precarious. The produce of the pasture grounds, of the chase and fishing, tend to make up for this uncertainty. The government is divided into ten circles. The town of this name is a bishop's see, and has 11,000 inhabitants.

VOLONES, in Roman antiquity, slaves who, in the Punic war voluntarily offered their service to the state, when they were admitted to citizenship, as none but freemen could be soldiers.

VOLTA (Alexander), an Italian philosopher, distinguished for his discoveries in Galvanic electricity, was descended of a noble family, and born at Como in 1745. In 1769 he addressed to father Beccaria a dissertation *De Vi attractiva Ignis Electrici*; and in 1774 was appointed professor of natural philosophy at Pavia. He was in this situation when the discoveries of Galvani were published. Volta immediately turned his attention to the subject of Galvanism, and to his researches is due the discovery of what has been termed the principle of electro-motion, or the excitement of electricity by the contact of heterogeneous substances, as exhibited in the phenomena of the Voltaic pile. Volta addressed to the Royal Society of London, in 1792, an account of his observations, and in 1794 he was presented with the Copleian medal. In 1801 Buonaparte invited our professor to Paris, where he exhibited his discoveries to the members of the Institute. He was subsequently deputy from the University of Pavia to the consulta of Lyons, and then a member of the college of the Dotti, a senator, and at length a count. He died March 6th, 1826. A complete edition of his works appeared at Florence in 1816, 5 vols. 8vo.

VOLTA, a considerable river of Guinea, in Western Africa, the boundary between the Gold and Slave coasts. It overflows its banks, and the channel is obstructed with rocks and sand-banks, which will not admit ships of burden.

VOLTAIRE (Francis Arouet de), a celebrated French author, born at Paris, February 20th, 1694. His father, Francis Arouet, was ancien notaire au Chatelet, and treasurer of the chamber of accounts. He was an exceeding weakly child. In his earliest years he displayed a ready wit and a sprightly imagination; and, as he said of himself, made verses before he was out of his cradle. The famous Ninon De L'Enclos, to whom this ingenious boy was introduced, left him a legacy of 2000 livres to buy him a library. Having been sent to the equity schools, on his quitting college, he was so disgusted with the dryness of the law, that he devoted himself entirely to the muses. He had early imbibed a turn for satire; and, for some philippics against the government, was imprisoned almost a year in the Bastille. He had before this period produced the tragedy of *Œdipus*, which was represented in 1718 with great success; and the duke of Orleans, happening to see it performed, was so delighted, that he obtained his release from prison. He began his *Henriade* before he was eighteen. Several copies of this poem having got



abroad, while it was only a sketch, an edition of it was published with many chasms, under the title of *The League*. Instead of fame and friends, the author gained only enemies and mortification, by this first edition. The bigots took fire at it, and the poet was considered as highly criminal for praising admiral Coligny and queen Elizabeth. Endeavours were even made to get the piece suppressed; but this design proved abortive. His chagrin, on this occasion, first inspired him with the thought of visiting England, to finish the work, and republish it in a land of liberty. He was right; for king George I., and more particularly the princess of Wales, afterwards queen of England, raised an immense subscription for him. Their liberality laid the foundation of his fortune; for on his return to France, in 1728, he put his money into a lottery and was fortunate. His *Lettres Philosophiques*, abounding in bold expressions and indecent witticisms against religion, having been burnt by a decree of the parliament of Paris, and a warrant being issued for apprehending the author in 1733, Voltaire withdrew; and was sheltered by the marchioness du Chatelet, in her castle of Cirey, on the borders of Champagne and Lorraine, who entered with him on the study of the system of Leibnitz, and the *Principia* of Newton. A gallery was built, in which Voltaire formed a good collection of natural history, and made an infinite number of experiments on light and electricity. He labored in the mean time on his *Elements* of the Newtonian Philosophy, then totally unknown in France, and which the numerous admirers of *Des Cartes* were very little desirous should be known. In the midst of these philosophical pursuits he produced the tragedy of *Alzira*. He was now in the meridian of his age and genius, as was evident from the tragedy of *Mahomet*, first acted in 1741; but it was represented to the procureur-general as a performance offensive to religion, and the author, by order of cardinal Fleury, withdrew it from the stage. *Merope*, played two years after, 1743, gave an idea of a species of tragedy of which few models had existed. He now became a favorite at court, through the interest of *Madam d'Etoile*, afterwards marchioness of Pompadour. He was appointed a gentleman of the bed-chamber in ordinary, and historiographer of France. He had frequently attempted to gain admittance into the Academy of Sciences, but could not obtain his wish till 1746, when he was the first who broke through the absurd custom of filling an inaugural speech with the fulsome adulation of *Richelieu*; an example soon followed by other academicians. From the satires occasioned by this innovation he felt so much uneasiness, that he was glad to retire with the marchioness du Chatelet to *Luneville*, in the neighbourhood of king Stanislaus. The marchioness dying, in 1749, Voltaire returned to Paris, where his stay was but short. The king of Prussia now gave Voltaire an invitation to live with him, which he accepted towards the end of August 1750. On his arrival at Berlin, he was immediately presented with the Order of Merit, the key of chamberlain, and a pension of 20,000 livres. These, however, he did not long enjoy. He did not take sufficient pains to live well; with *Maupertuis*, whose intrigues effected his disgrace. He now settled near Geneva; but afterwards, being obliged to quit that republic, he purchased the castle of Ferney in France, about a

league from the lake of Geneva. It was here that he undertook the defence of the celebrated family of Calas; and it was not long before he had a second opportunity of vindicating the innocence of another condemned family of the name of *Sirven*. In 1774 he had the third time an opportunity of employing that zeal which he had displayed in the fatal catastrophe of the families of Calas and *Sirven*. In this retreat M. Voltaire continued long to enjoy the pleasures of rural life. Wearied at length, however, with his situation, or yielding to the importunities of friends, he came to Paris about the beginning of 1778, where he wrote a new tragedy called *Irene*. By this time his understanding seems to have been impaired, and he ridiculously suffered himself to be crowned in public with laurel, in testimony of his great poetical merit. He did not long survive this farce: for having over-heated himself with receiving visits, and exhausted his spirits by supplying a perpetual fund of conversation, he was first seized with a spitting of blood; and at last, becoming restless in the night time, he was obliged to use a soporific medicine. Of this he unluckily one night took so large a dose, that he slept thirty-six hours, and expired a very short time after awakening from it.

**VOLUBLE**, *adj.* } Lat. *volubilis*. Formed  
**VOLUBILITY**, *n. s.* } so as to roll easily; rolling;  
nimble; active, applied to the tongue and its  
nimbleness; fluent of words: the noun substantive  
corresponds.

Then celestial fears should forget their wonted motions, and by irregular *volubility* turn themselves any way, as it might happen. *Hooker*.

If *voluble* and sharp discourse be marred,  
Unkindness blunts it more than marble hard. *Shaksp.*

This less *voluble* earth,  
By shorter flight to the east, had left him there. *Milt.*  
He had all the French assurance, cunning, and *volubility* of tongue. *Addison*.

These, with a *voluble* and flippant tongue, become mere echoes. *Watts*.

*Volubility*, or aptness to roll, is the property of a bowl, and is derived from its roundness. *Id.*

**VOLUMNA, AND VOLUMNUS**, in the mythology, two deities of the ancient Etrurians and Romans, who presided over the will and complaisance. They were invoked at marriages to preserve concord between the parties.

**VOLUMNÆ FANUM**, a temple of Etruria, sacred to the above deities; where the Roman states assembled to make treaties. Viterbo now stands on the spot.

**VOLUME**, *n. s.* } Lat. *volumen*. Some-  
**VOLUMINOUS**, *adj.* } thing rolled or convolv-  
**VOLUMINOUSLY**, *adv.* } ed; as much as seems  
convolved at once; a book, (because anciently  
formed into a roll or rolls): the adjective and ad-  
verb correspond with both senses.

Guyon all this while his book did read,  
Ne yet has ended; for it was a great

And ample *volume*, that doth far exceed  
My leisure, so long leaves here to repeat. *Spenser*.

Threescore and ten I can remember well;  
Within the *volume* of which time I've seen  
Hours dreadful, and things strange. *Shakspere*.

He did not bear contradiction without much passion,  
and was too *voluminous* in discourse. *Clarendon*.

The serpent rolled *voluminous* and vast. *Milton*.  
There is pleasure in doing something new, though  
never so little, without pestered the world with *voluminous* transcriptions. *Grants*.



Unopposed they either lose their force,  
Or wind in *volumes* to their former course. *Dryden.*

I shall not now enlarge on the wrong judgments  
whereby men mislead themselves. This would make a  
*volume.* *Locke.*

The most severe reader makes allowances for many  
rests and nodding-places in a *voluminous* writer. *Spect.*

The controversies are hotly managed by the divided  
schools, and *voluminously* every where handled. *Gran.*

**VOLUMNIA**, the wife of Coriolanus.

**VOLUMNIUS**, an Etrurian, who wrote tra-  
gedies.

**VOLUMNIUS**, a friend of M. Brutus, who was  
with him when he killed himself, and wrote the  
particulars: quoted by Plutarch.

**VOLUNTARY**, *adj* & *n. s.* } *Fr. volontaire;*

*VOLUNTARILY*, *adv.* } *Latin voluntarius.*

Acting without compulsion; by choice, or willing;  
purposed; done by design: a volunteer; a piece  
of music played at will: the adverb corresponding.

To be agents *voluntarily* in our own destruction, is  
against God and nature. *Hooker.*

God did not work as a necessary, but a *voluntary*  
agent; intending before-hand, and decreeing with  
himself, that which did outwardly proceed from him.  
*Id.*

The lottery of my destiny  
Bars me the right of *voluntary* chusing. *Shakspeare.*

All the unsettled humours of the land;  
Rash, inconsiderate, fiery *voluntaries.* *Id.*

Aids came in partly upon missives, and partly *volun-*  
*taries* from all parts. *Bacon.*

Whistling winds like organs played,  
Until their *voluntaries* made  
The wakened earth in odours rise,  
To be her morning sacrifice. *Cleveland.*

Thoughts which *voluntary* move  
Harmonious numbers. *Milton.*

*Voluntary* forbearance denotes the forbearance of an  
action, consequent to an order of the mind. *Locke.*

'By a *voluntary* before the first lesson, we are pre-  
pared for admission of those divine truths, which we  
are shortly to receive. *Spectator.*

**VOLUNTARY**, in music, a piece played by a mu-  
sician extempore, according to his fancy. This is  
often used before he begins to set himself to play  
any particular composition, to try the instrument,  
and to lead him into the key of the piece he in-  
tends to perform.

**VOLUNTEER**, *n. s.* & *v. n.* *Fr. volontaire.*  
A soldier, who enters into the service of his own  
accord: to go voluntarily for a soldier.

Leave off these wagers, for in conscience speaking,  
The city needs not your new tricks for breaking:

And if you gallants lose, to all appearing,  
You'll want an equipage for volunteering. *Dryden.*

Congreve, and the author of the Relapse, being the  
principals in the dispute, I satisfy them; as for the  
*volunteers*, they will find themselves affected with the  
misfortune of their friends. *Collier.*

**VOLUNTEERS**, persons who, either for the service  
of their prince, or out of the esteem they have for  
their general, serve in the army without being en-  
listed, to gain honor and preferment, by exposing  
themselves in the service. Such are the volunteers  
who have been long known in the army: but the  
present age has witnessed whole regiments of vo-  
lunteers arming themselves for a still more laud-  
able purpose. In 1794 large bodies of citizens in  
the different cities and towns of Great Britain  
formed themselves into regiments for the preserva-  
tion of internal peace, and the defence of their  
country from foreign attack. At the peace, in 1801,  
they mostly laid down their military habits; but,

when war was again declared in 1803, and the de-  
termination of Buonaparte to invade this island  
was announced, the inhabitants rose as one man;  
and ministers spoke of nearly 500,000 volunteers  
being in arms.

**VOLUPTUOUS**, *adj.* } *Fr. voluptueux; Lat.*  
**VOLUPTUARY**, *n. s.* } *voluptuosus.* Given to  
**VOLUPTUOUSLY**, *adv.* } excess of pleasure; lux-  
**VOLUPTUOUSNESS**, *n. s.* } urious: the adverb and  
noun substantive corresponding: a voluptuary is a  
man devoted to pleasure and luxury.

He them deceives; deceived in his deceit:  
Made drunk with drugs of dear *voluptuous* receipt.

*Spenser.*  
Had I a dozen sons, I had rather eleven died nobly  
for their country, than one *voluptuously* surfeit out of  
action. *Shakspeare.*

Here, where still evening is, not noon nor night;  
Where no *voluptuousness*, yet all delight. *Donne.*

You may be free, unless  
Your other lord forbids, *voluptuousness.* *Dryden.*  
Does not the *voluptuary* understand, in all the liber-  
ties of a loose and a lewd conversation, that he runs the  
risk of body and soul? *L'Estrange.*

**VOLUSIANUS**, a Roman emperor, associated  
by his father Gallus, and murdered along with him.  
See **ROME**.

**VOLUSIUS**, a poet of Patavia, who wrote the  
Annals of Rome in verse.

**VOLUTA**, in natural history, a genus of ani-  
mals belonging to the class and order of vermes  
testacea. There are 144 species. The animals are  
of the slug kind; the shell is unilocular and spiral;  
the aperture narrow and without a beak; the colum-  
nelle plaited.

**VOLUTE**, *n. s.* *Fr. volute.* An architectural  
member of a column.

It is said there is an Ionick pillar in the Santa Maria  
Transtevere, where the marks of the compass are still  
to be seen on the *volute*; and that Palladio learnt  
from thence the working of that difficult problem.  
*Addison.*

**VOM'ICA**, *n. s.* *Latin vomica.* An encysted  
tumor on the lungs.

If the ulcer is not broke, it is commonly called a  
*comica*, attended with the same symptoms as an empy-  
ema: because the *vomica*, communicating with the ves-  
sels of the lungs, must necessarily void some of the  
putrid matter, and taint the blood. *Arbuthnot.*

**VOM'IT**, *v. n., v. a., &* } *Latin vomo, vomito.* To  
**VOM'ITIVE**, *n. s.* [ *n. s.* ] } cast up the contents of the  
**VOM'ITORY**, *adj.* } stomach: throw up from  
the stomach; or with

violence: the matter thrown up; a medicine that  
causes vomiting: vomition is the act or power of  
vomiting: vomitive and vomitory, causing vomits;  
emetic.

The fish vomited out Jonah upon the dry land.  
*Jonah ii.*

He shall cast up the wealth by him devoured,  
Like vomit from his yawning entrails poured. *Sandys.*

As though some world unknown,  
By pampered nature's store too prodigally fed,  
And surfeiting therewith, her surcrease vomited.

*Drayton.*  
Since regulus of stibium, or glass of antimony, will  
communicate to water or wine a purging or vomitory  
operation, yet the body itself, after iterated infusions,  
abates not virtue or weight. *Brown's Vulgar Errors.*

From this vitriolous quality, mercurius dulcis, and  
vitriol vomitive, occasion black injections. *Id.*

How many have saved their lives, by spewing up  
2 K 2

their debauch! Whereas, if the stomach had wanted the faculty of vomiting, they had inevitably died.

*Grew's Cosmology.*  
This vomit may be repeated often, if it be found successful.  
*Blackmore.*

**VOMITING.** That internal sensation which announces the necessity of vomiting is called nausea; it consists of a general uneasiness, with a feeling of dizziness in the head, or in the epigastric region: the lower lip trembles, and the saliva flows in abundance. Instantly, and involuntarily, convulsive contractions of the abdominal muscles, and at the same time of the diaphragm, succeed to this state; the first are not very intense, but those that follow are more so; they at last become such, that the matters contained in the stomach surmount the resistance of the cardia, and are thus darted, as it were, into the œsophagus and mouth; the same effect is produced many times in succession; it ceases for a time, and begins again after some interval. At the instant that the matters driven from the stomach traverse the pharynx and the mouth, the glottis shuts, the velum of the palate rises, and becomes horizontal, as in deglutition; nevertheless, every time that one vomits, a certain quantity of liquid is introduced either into the larynx, or the nasal canals.

Vomiting was long believed to depend upon the rapid convulsive contraction of the stomach; but it has been shown, by a series of experiments, that in the process, this viscus is nearly passive; and that the true agents of vomiting are, on the one hand, the diaphragm, and, on the other, the large abdominal muscles. In the ordinary state, the diaphragm and the muscles of the abdomen co-operate in vomiting; but each of them can, nevertheless, produce it separately. Thus, an animal still vomits, though the diaphragm has been rendered immovable by cutting the diaphragmatic nerves; it vomits the same, though the whole abdominal muscles have been taken away by the knife, with the precaution of leaving the linea alba and the peritonæum untouched.

**VOPISCUS** (Flavius), a Roman historian who flourished about A. D. 303, and wrote the lives of the emperors Aurelian, Tacitus, Florianus, Probus, Firmus, Carus, Carinus, &c. He is one of the six historians whose works are extant, and printed under the title of *Historiæ Augustæ Scriptores*; but he excels the rest in elegance.

**VORACIOUS**, *adj.* } Fr. vorace; Lat. vorax.  
**VORACIOUSLY**, *adv.* } Greedy to eat; ravenous:  
**VORACIOUSNESS**, *n. s.* } the adverb and noun  
**VORACITY**. } substantives corresponding.

*ing.*  
Creatures by their voracity pernicious, have commonly fewer young. *Derham's Physico-Theology.*  
So voracious is this humour grown, that it draws in every thing to feed it. *Government of the Tongue.*

**VORARLBERG**, a mountainous district of Austria, bordering on Switzerland, the lake of Constance, and Bavaria. It takes its name from a great mountain called Arlberg, which separates it from Tyrol, and forms one of the branches of the Alps. The Vorarlberg consisted of a number of petty lordships, all ceded to Bavaria at the peace of Presburg in 1806, but restored after the fall of Buonaparte. It now forms a circle of Tyrol, but has still its separate states. Its area is about 940 square miles; its population 85,000. The chief town Bregenz.

**VORMAR** (Isaac), a learned German, who was employed as an imperial plenipotentiary in negotiating the peace of Westphalia. He wrote *Memoirs of Public Affairs*, and died in 1662.

**VORONEZ**, a province and town of the interior of European Russia, bounded on the east by the country of the Don Cossacks, and lying between lat. 48° and 54° N. Its area is 31,000 square miles; but its population hardly amounts to 800,000.

**VORTEX**, *n. s.* } Lat. vortex. In the plural  
**VORTICAL**, *adj.* } vortices. Any thing whirled round: having a whirling motion.

Conflicting passions, loud, impetuous, strong,  
Wrapt in their vortex, hurry him along;  
And luckily one striking feature caught,  
A semblance stamps, though charged with many a fault.  
*White's Poems.*

If many contiguous vortices of molten pitch were each of them as large as those which some suppose to revolve about the sun and fixed stars, yet these, and all their parts, would by their tenacity and stiffness communicate their motion to one another. *Newton.*

It is not a magnetical power, nor the effect of a vortical motion; those common attempts towards the explication of gravity. *Bentley's Sermons.*

**VORTEX**, in meteorology, a whirlwind, or sudden, rapid, and violent motion of the air in gyres or circles. Vortex is also used for an eddy or whirlpool; or a body of water in certain seas or rivers, which run rapidly around, forming a sort of cavity in the middle.

**VORTEX**, in the Cartesian philosophy, is a system or collection of particles of matter moving the same way, and round the same axis.

*The VORTICES OF DES CARTES* are now justly exploded; but, being the fiction of a very superior mind, they are still an object of curiosity, as being the foundation of a great philosophical romance. According to him, the whole of infinite space was full of matter; for he said matter and extension were the same, and consequently there could be no void. This immensity of matter he supposed to be divided into an infinite number of very small cubes; all of which, being whirled about upon their own centres, necessarily gave occasion to the production of two different elements. The first consisted of those angular parts which, having been necessarily rubbed off, and grinded yet smaller by their mutual friction, constituted the most subtle and moveable part of matter. The second consisted of those little globules that were formed by rubbing off the first. The interstices betwixt these globules of the second element were filled up by the particles of the first. But in the infinite collisions, which must occur in an infinite space filled with matter, and all in motion, it must necessarily happen that many of the globules of the second element should be broken and grinded down into the first. Such Des Cartes supposed was the cause of the original formation and consequent motions of the planetary system. When a solid body is turned round its centre, those parts of it which are nearest, and those which are remotest from the centre, complete their revolutions in one and the same time. But it is otherwise with the revolutions of a fluid: the parts of it which are nearest the centre complete their revolutions in a shorter time than those which are remoter. The planets, therefore, all floating in that immense tide of æther which is continually setting in from west



to east round the body of the sun, complete their revolutions in a longer or a shorter time, according to their nearness or distance from him. It is surely sufficient, however, to demolish this goodly fabric, barely to ask how an absolute infinity of matter can be divided into cubes, or any thing else? How there can possibly be interstices in a perfect plenum? or how in such a plenum any portion of matter can be thrust from its place.

VOSGES, a chain of mountains in the east of France, extending from north to south, in a line nearly parallel to the course of the Rhine, from Bale to Spies. This chain may be termed a continuation of the Jura; for it begins nearly where the latter end, and is separated from them only by a valley. The length of the main chain is about 120 miles.

Vosges, a department of the north-east of France, formed of a part of Lorraine, and adjoining the departments of the Meurthe and Upper Saone. Its extent, equal to two of our average sized counties, is about 2400 square miles; its population somewhat above 334,000. The surface is rugged, and here are the sources of several large rivers, as the Meuse, the Moselle, the Meurthe, and the Saone. The smaller streams and mountain torrents are numerous, as are the mineral waters, of which the best known are those of Plombieres. In the mountains the soil is often stony: in the plains chalky and sandy. The climate is cold; the products oats, barley, rye, potatoes, flax, and hemp. In the more fertile tracts wheat, and, in situations of favorable exposure, vines; the summer heat being great. The mineral products are iron, lead, copper, and, in a few situations, silver, marble, and potters'-earth. This department is divided into five arrondissements. Its capital is Epinal. The population, chiefly agriculturists, is far from dense. The cheapness of provisions, and consequently of labor, has led to the introduction of linen and cotton cloth manufactures, the spinning of yarn, and the making of lace. These articles furnish, along with cattle, butter, cheese, glass, earthen-ware, and timber, the chief exports.

VOSS (John Henry), a German poet and critic, was born at Sommersdorf in 1751. Educated at the school of Neu Brandenburg he attracted some notice by his poems, inserted in the Almanac of the Muses, of Gottingen, in 1770, and procured the means of studying in the university at that place. A literary society having been formed, called The Friends of Gottingen, he became one of the members, among whom were count Stolberg, Holty, Burger, Klopstock, &c. In 1775 Voss engaged in the publication of the Almanac of the Muses, or Anthology (Blumenlese) of Gottingen, which he conducted till 1800. In 1778 he was nominated rector of the college of Ottendorf, Hanover, whence he removed to occupy a similar office at Eutin in the duchy of Oldenburg. He remained there twenty-three years; and, in 1805, the grand duke of Baden invited him to Heidelberg, where he remained till his death, March 29th, 1826. Voss translated the works of Homer, 1793; Virgil, 1799; Horace, 1806; Hesiod and the pseudo-Orpheus, 1806; Theocritus, Bion, and Moschus, 1808; Tibullus and Lygdamus, 1810; Aristophanes, 1821; Aratus, 1824; and extracts from the Metamorphoses of Ovid, 1798. His original writings comprise Letters on Mythology, Idylls, and other poems, besides numerous papers in periodical works. He

was also engaged in various literary controversies with Heyne, count Stolberg, Creuzer, and others of his learned contemporaries.

VOSSIUS (John Gerard), one of the most learned and laborious writers of the seventeenth century, was of a considerable family in the Netherlands; and was born in 1577, in the Palatinate, near Heidelberg, at a place where his father, John Vossius, was minister. He became well skilled in politic literature, history, and sacred and profane antiquities, and was made director of the college of Dort. He was at length made professor of eloquence and chronology at Leyden, whence he was called in 1633 to Amsterdam, to fill the chair of a professor of history. He died in 1649. He wrote many learned works, of which a complete edition has been printed at Amsterdam, in nine vols. folio.

Vossius (Dionysius), a son of the above, born at Dort in 1612. He was very learned in the oriental history, and published a Latin translation of Maimonides on Idolatry, with notes: and other tracts. He died at Amsterdam, in 1633.

Vossius (Isaac), a man of great parts and learning, brother to Dionysius, was born at Leyden in 1618. He had no other tutor but his father, and employed his whole life in studying: his merit recommended him to a correspondence with queen Christina of Sweden; he made several journeys into Sweden by her order, and had the honor to teach her the Greek. In 1670 he came over to England, where king Charles made him canon of Windsor. He appears indeed by his publications, which are neither so useful nor so numerous as his father's, to have been a most credulous man, while he afforded many circumstances to bring his religious faith in question. He died at Windsor castle in 1688. He was LL.D.

Vossius (Gerard), a Romish divine, a relation of the preceding, was born in 1609. He published the works of Gregorius Thaumaturgus; Ephrem Syrus, and some tracts of John Chrysostom, and Theodoret, with Latin versions and notes.

VOSTITZA, a district of the Morea, in Achæia, extending along the coast of the gulf of Lepanto. Its chief town of the same name, occupying the site of the ancient Ægium, was lately a flourishing sea-port containing 800 houses; but, on the 23d of August, 1817, it was destroyed, in a great measure, by an earthquake along with a number of the neighbouring villages. Its port was tolerably good, and served as a place to export cheese, raisins, and other products to Patras and the neighbouring isles. Twenty-five miles east of Patras, and forty north west of Corinth.

|                                 |   |
|---------------------------------|---|
| VOTARY, <i>n. s. &amp; adj.</i> | } Lat. <i>devotus</i> . Or devoted, as by a vow to any particular service: this both the first two noun substantives signify; and votaress is the feminine: votary, as an adjective, means consequent on a vow. |
| VOTARIST, <i>n. s.</i>          |   |
| VOTARESS.                       |   |

Like a sad votaress, beautiful in tears,  
Child of unfeigned contrition she appears. *Whyte.*

I wish a more strict restraint  
Upon the sisterhood, the votarists of St. Clare.

*Shakspeare.*

Wherefore waste I time to counsel thee?  
Thou art a votary to fond desire.

*Id.*

Superstition is now so well advanced, that men of the first blood are as firm as butchers by occupation; and votary resolution is made equippollent to custom even in matter of blood.

*Bacon.*

What force have pious vows? the queen of love  
His sister sends, her votress from above. *Pope.*

VOTE, *n. s. & v. a.* } Lat. *volunt.* Suffrage;  
VOTER, *n. s.* } voice given and num-  
bered: to assent or give by suffrage: he who  
votes.

He that joins instruction with delight,  
Profit with pleasure, carries all the votes. *Roscommon.*

How many have no other ground for their tenets,  
than the supposed honesty or learning of those of the  
same profession! as if truth were to be established by  
the vote of the multitude. *Locke.*

Elections growing chargeable, the voters, that is,  
the bulk of the common people, have been universally se-  
duced into bribery, perjury, drunkenness, malice, and  
slander. *Swift.*

The final determination arises from the majority of  
opinions or votes in the assembly, because they ought  
to be swayed by the superior weight of reason. *Watts.*

VOTIVE, *adj.* Lat. *votivus.* Given by vow.

Such in Isis's temple you may find,  
On votive tablets to the life portrayed. *Dryden.*

VOUCH, *v. a., v. n., & n. s.* } Norman French  
VOUCHER, *n. s.* } voucher; from Lat.  
VOUCHSAFE, *v. a. & v. n.* } vocatio. To call  
VOUCHSAFE'MENT, *n. s.* } to witness; ob-  
test; declare; warrant; to bear witness: warrant;

attestation: a voucher is one who gives testimony;  
any kind of testimony: to vouchsafe is to grant by  
way of condescension: to deign; yield: the noun  
substantive corresponding.

Do I not see Zelmane, who does not think a thought  
which is not first weighed by wisdom and virtue? doth  
not she vouchsafe to love me with like ardour? *Sidney.*

Vouchsafe, divine perfection of a woman,  
Of these supposed crimes to give me leave  
By circumstance but to acquit myself. *Shakspeare.*

You do not give the cheer; the feast is sold  
That is not often vouch'd, while 'tis making,  
'Tis given with welcome. *Id.*

Better to starve,  
Than crave the hire which first we do deserve:  
Why in this wolvisish gown should I stand here,  
To beg of Hob and Dick, that do appear,  
Their needless voucher? *Id.*

What praise couldst thou bestow on a deserving  
woman indeed? one that, in the authority of her  
merit, did justly put on the vouch of very malice itself. *Id.*

But if the sense of touch seem such delight  
Beyond all other, think the same vouchsafed  
To cattle and each beast. *Milton.*

The infinite superiority of God's nature places a vast  
disparity betwixt his greatest communicated vouchsafe-  
ments, and his boundless, and therefore to his creatures  
incommunicable, perfections. *Boyle.*

The stamp is a mark, and a public voucher, that a  
piece of such denomination is of such a weight, and  
of such a fineness, i. e. has so much silver in it. *Locke.*

All the great writers of that age stand up together  
as vouchers for one another's reputation. *Spectator.*

VOW, *n. s., v. a., & v. n.* } Fr. *vœu*; Lat. *vo-*  
VOWFELLOW, *n. s.* } tum. A promise  
made to a divine power; or an act of devotion, by  
which some part of life, or of possessions, is con-  
secrated to a particular purpose: to consecrate  
in this way: to make solemn vows or promises  
of this kind: a vowfellow is one bound by the  
same vow. *Locke.*

Vow and pray unto the Lord. *Psal. lxxvi.*  
To Master Harvey, upon some special consideration,  
I have vowed this my labour. *Spenser.*

David often voweth unto God the sacrifice of praise  
and thanksgiving in the congregation. *Hooker.*

Who are the votaries

That are vowfellows with this virtuous king? *Shalop*

The gods are deaf to hot and peevish vows;  
They are polluted offerings. *Id*

Whoever sees these irreligious men,  
With burden of a sickness, weak and faint,  
But hears them talking of religion then,  
And touting of their soul to every saint. *Davies.*

If you take that vow and that wish to be all one, you  
are mistaken; a wish is a far lower degree than a vow.  
*Hammond.*

Those, who wear the woodbine on their brow,  
Were knights of love, who never broke their vow;  
Firm to their plighted faith. *Dryden.*

Vow, in religion. The use of vows is found in  
most religions. They make up a considerable part  
of the Pagan worship, being made either in con-  
sequence of some deliverance, under some pressing  
necessity, or for the success of some enterprise.  
Among the Jews, all vows were to be voluntary,  
and, made by persons wholly in their own power;  
and if such person made a vow in any thing lawful  
and possible, he was obliged to fulfil it. If he ap-  
pointed no particular time for accomplishing his  
vow, he was bound to do it instantly, lest by delay  
he should prove less able, or be unwilling, to exe-  
cute his promise. Among the Romanists, a person  
is constituted a religious by taking three vows; that  
of poverty, chastity, and obedience.

Vows, among the Romans, signified sacrifices,  
offerings, presents, and prayers, made for the Cæ-  
sars and emperors, particularly for their prosperity  
and the continuance of their empire. These were  
made at first every five years, then every fifteen,  
and afterwards every twenty, and were called quin-  
quennialia, decennialia, and vincennialia.

VOW'EL, *n. s.* Fr. *voyelle*; Lat. *vocalis.* A  
letter which can be uttered by itself.

I distinguish letters into vowels and consonants.

Virgil makes the two vowels meet without an elision.  
*Broom.*

VOX, in law, *vocem non habere*, a phrase used  
by Bracton and Fleta for an infamous person; one  
who is not admitted to be a witness.

VOX HUMANA, Lat., *voix humaine*, Fr., in mu-  
sic, a stop in the organ, thus named from its being  
an imitation of the human voice. It is a reed stop,  
in unison with the open diapason, or a short metal  
pipe, of a wide globular form, at the top resembling  
a human mouth. This is a celebrated stop in the  
famous organ at Haerlem.

VOYAGE, *n. s., v. n., & v. a.* } Fr. *voyage.* A  
VOYAGER, *n. s.* } travel by sea;  
course; attempt; the practice of travelling (obso-  
lete): to voyage is to travel by sea: to pass over:  
a voyager, a traveller by sea.

Guyon forward 'gan his voyage make,  
With his black palmer, that him guided still. *Spenser.*  
If you make your voyage upon her, and prevail,  
I am no further your enemy. *Shakspeare.*

All nations have interknowledge of one another, by  
voyage into foreign parts, or strangers that come to  
them. *Bacon.*

Disdain not in thy constant travelling  
To do as other voyagers, and make  
Some turns into less creeks, and wisely take  
Fresh water at the Heliconian spring. *Donne.*  
I with pain

Voyaged the unreal, vast, unbounded deep  
Of horrible confusion. *Milton.*

This great man acted like an able pilot in a long  
voyage; contented to sit in the cabin when the winds



were allayed, but ready to resume the helm when the storm arose. *Prior.*

UP, *adv., interj., & prep.* Sax. up; Belg. and Dan. *op*; Goth. and Swed. *upp*. Aloft; on high; erect; climbing; exalted; in a state of being raised or increase: 'up and down' is, disorderly; backward and forward: taking *with* and to as prepositions: as an interjection arise! rouse! as a preposition, from a lower to a higher position.

As soon as the sun is up, set upon the city.

*Judges ix.*

Those that were up themselves kept others low,  
Those that were low themselves held others hard,  
Ne suffered them to rise or greater grow. *Spenser.*

Up grisly ghosts; and up, my rueful rime;  
Matter of mirth now shalt thou have no more. *Id.*

From those two brethren, admire the wonderful changes of wordly things; now up, now down, as if the life of man were not of much more certainty than a stage play. *Knolles.*

The gentle archbishop of York is up  
With well-appointed powers. *Shakespeare. Henry VI.*

In going up a hill, the knees will be most weary; in going down, the thighs: for that, in lifting the feet, when a man goeth up the hill, the weight of the body beareth most upon the knees, and, in going down, upon the thighs. *Bacon.*

Strait the rumour flew  
Up to the city; which heard, up they drew  
By daies first breake. *Chapman.*

But up, and enter now into full bliss. *Milton.*  
Thou hast fired me; y my soul's up in arms,  
And mans each part about me. *Dryden.*

As a boar was whetting his teeth, up comes a fox to him. *L'Estrange.*

Upon his first rising, a general whisper ran among the country people, that Sir Roger was up. *Addison.*

UPBEAR', *v. a. Preter.* upbore; *part. pass.* upborn. Up and bear. To sustain aloft; support in elevation.

Vital powers 'gan wax both weak and wan,  
For want of food and sleep; which two upbear,  
Like weighty pillars, this frail life of man. *Spenser.*  
Upborn with indefatigable wings. *Milton.*

UPBRAID', *v. a.* } Sax. upgebrædan, up-  
UPBRAID'INGLY, *adv.* } gebrænan. To charge contemptuously with any thing disgraceful. It has commonly *with*, sometimes *of*, before the thing imputed; sometimes it has only an accusative of the thing, as in Milton: the adverb corresponds.

If any lack wisdom, let him ask of God, that giveth liberally, and upbraidedh not. *James i. 5.*

Vain man! how long wilt thou thy God upbraid?  
And, like the roaring of a furious wind,  
Thus vent the vile distemper of thy mind? *Sandys.*

There also was that mighty monarch laid,  
Low under all, yet above all in pride;  
That name of native sire did foul upbraid,  
And would, as Ammon's son, be magnified. *Spenser.*

If you refuse your aid, yet do not  
Upbraid us with our distress. *Shakespeare.*

I have too long born  
Your blunt upbraidings, and your bitter scoffs. *Id.*  
He that knowingly commits an ill, has the upbraid-  
ings of his own conscience. *Decay of Piety.*

UPBROUGHT', *part. pass.* of upbringing. Educated; nurtured.

Divinely wrought,  
And of the brood of angels, heavenly born,  
And with the crew of blessed saints upbrought,  
Each of which did her with her gifts adorn. *Spenser.*

UPCAST', *adj. & n. s.* Participle from to cast up. The verb to upcast is not in use. Thrown upwards; a term of bowling; a throw.

Was there ever man had such luck? when I kissed the jack, upon an upcast to be hit away! *Shakespeare.*  
Beasts with upcast eyes forsake their shade,  
And gaze as if I were to be obeyed. *Dryden.*

UPGATHER, *v. a.* Up and gather. To contract.

Himself he close upgathered more and more  
Into his den, that his deceitful train  
By his there being might not be bewraid,  
Ne any noise, ne any question made. *Spenser.*

UPHAND', *adj.* Up and hand. Lifted by the hand.

The uphand sledge is used by underworkmen, when the work is not of the largest, yet requires help to batter. They use it with both their hands before them, and seldom lift their hammer higher than their head. *Moxon.*

UPHILL', *adj.* Up and hill. Difficult; like the labor of climbing a hill.

What an uphill labour must it be to a learner, who has those first rudiments to master at twenty years of age, which others are taught at ten. *Clarissa.*

UPHOARD', *v. a.* Up and hoard. To treasure; store.

Heaps of huge words uphoarded hideously  
With horrid sound though having little sense,  
They think to be chief praise of poetry. *Spenser.*  
If thou hast uphoarded in thy life  
Extorted treasure in the womb of earth,  
Speak of it. *Shakespeare.*

UPHOLD', *v. a.* } *Preter.* upheld; *part. pass.*

UPHOLD'ER, *n. s.* } upholden. Up and hold. To lift on high; support; sustain; continue: the noun substantive corresponding: it is used also particularly for an undertaker.

Divers, although peradventure not willing to be yoked with elderships, yet were contented to uphold opposition against bishops, not without greater hurt to the course of their whole proceedings. *Hooker.*

While life upholds this arm,  
This arms upholds the house of Lancaster. *Shakespeare.*  
Many younger brothers have neither lands nor means to uphold themselves. *Raleigh.*

There is due from the judge to the advocate some commendation where causes are fair pleaded; for that upholds in the client the reputation of his counsel, and beats down in him the conceit of his cause. *Bacon.*

He who reigns  
Monarch in heaven, till then, as one secure,  
Sat on his throne, upheld by old repute. *Milton.*

The company of upholders have a right upon the bodies of the subjects. *Arbuthnot.*

Suppose then Atlas ne'er so wise:  
Yet, when the weight of kingdoms lies  
Too long upon his single shoulders,  
Sink down he must, or find upholders. *Swift.*

UPHOL'STERER, *n. s.* A corruption of upholder. One who furnishes houses; or who fits up apartments with beds and furniture.

If a corner of the hanging wants a single nail, send for the upholsterer. *Swift.*

Mere wax as yet, you fashion him with ease,  
Your barber, cook, upholsterer. *Pope.*

UPLAND, *n. s. & adj.* } Up and land. Higher  
UPLAND'ISM, *adj.* } ground; higher in situation; rude; uncultivated: uplandish has also the latter signification.

Lion-like, uplandish, and mere wild,  
Slave to his pride; and all his nerves being naturally compiled

Of eminent strength; stalks out and preys upon a silly sheep. *Chapman's Iliad.*

Those in Cornwall do no more by nature than others elsewhere by choice, conceive themselves an estranged

society from the upland dwellers, and carry an emulation against them. *Carew's Surrey of Cornwall.*

Sometimes with secure delight

The upland hamlets will invite. *Milton.*

**UPLAND**, a province of Middle Sweden, bounded by the gulf of Bothnia, the Baltic, the lake of Malar, and Westmannland. It consists of an extensive plain, a little above the level of the sea, and in general fertile, having an area of 500 English square miles, with a population of 230,000. It is watered by a number of rivers, some of which are navigable. Upland contains very extensive forests, also some of the best iron mines in Sweden. Besides Stockholm (the capital of the kingdom) it contains Upsal, and several other towns.

**UPLAY**, *v. a.* Up and lay. To hoard; to lay up.

We are but farmers of ourselves; yet may,

If we can stock ourselves and thrive, *uplay*  
Much, much good treasure, for the great rent-day.

*Donne.*

**UPLIFT**, *v. a.* Up and lift. To raise aloft.

Mechanick slaves,

With greasy aprons, rules and hammers, shall

*Uplift* us to the view. *Shakspeare.*

Together both, with next t' almighty arm

*Uplifted* imminent, one stroke they aimed. *Milton.*

Songs, sonnets, epigrams, the winds *uplift*,

And whisk them back to Evans, Young, and Swift.

*Pope.*

**UPMOST**, *adj.* An irregular superlative formed from up. Highest; topmost.

Away! ye skum,

That still rise *upmost* when the nation boils;

That have but just enough of sense to know

The master's voice, when rated to depart. *Dryden.*

**UPON**, *prep.* Up and on. Is in many of its significations now contracted into *on*, especially in poetry. Its meaning is very multifarious; for it is applied both to place, which seems its original signification; to time, which seems its secondary meaning; and to intellectual or corporeal operations. It always retains an intimation, more or less obscure, of some substratum, something precedent, or some subject. It is not easy to reduce it to any general idea.

The Philistines be *upon* thee, Sampson. *Judges.*

We have borrowed money for the king's tribute, and that *upon* our lands and *upon* our vineyards. *Nehemiah.*

Blood that is *upon* the altar. *Bible.*

How? that I should murder her?

*Upon* the love, and truth, and vows, which I

Have made to thy command!—I, her!—her blood!

*Shakspeare.*

He made a great difference between people that did rebel *upon* wantonness, and them that did rebel *upon* want.

*Bacon.*

The enemy lodged themselves at Aldermaston, and those from Newberry and Reading in two other villages *upon* the river Kennet, over which he was to pass.

*Clarendon.*

No man, who had a mind to do wrong, would be awed from doing it by a law that is always to be a sword in a scabbard, and must never be pleaded against him, or executed *upon* him. *Kettlevorth.*

*Upon* this, I remember a strain of refined civility, that when any woman went to see another of equal birth, she worked at her own work in the other's house.

*Temple.*

If we would neither impose *upon* ourselves, nor others, we must lay aside that fallacious method of censuring by the lump.

*Burnet.*

This advantage we lost *upon* the invention of fire-arms.

*Addison.*

Constantia he looked upon as given away to his rival *upon* the day on which their marriage was to be solemnized. *Id.*

The design was discovered by a person as much noted for his skill in gaming as in politicks, upon the base mercenary end of getting money by wagers. *Swift.*

**UPPER**, *adj.* } A comparative from up. Su-  
**UPPERMOST**, } prior in place or dignity; higher:  
highest in place or dignity.

The like corrupt and unreasonable custom prevailed far, and got the *upper* hand of right reason with the greatest part. *Hooker.*

The waters, called the waters above the heavens, are but the clouds, and waters engendered in the *uppermost* air. *Raleigh.*

Our knight did bear no less a pack

Of his own buttocks on his back;

Which now had almost got the *upper*

Hand of his head, for want of crupper. *Hudibras.*

In all things follow nature, not painting clouds in the bottom of your piece, and waters in the *uppermost* parts.

*Dryden.*

The understanding was then clear, and the soul's *upper* region lofty and serene, free from the vapours of the inferior affections. *South's Sermons.*

**UPPINGHAM**, a market-town in Martinsley hundred, Rutlandshire, seven miles south of Oakham, and eighty-nine north by west of London. The town, consisting principally of one street, stands on an eminence, whence it is supposed to have derived its name. The houses are well built, and the streets clean and neat; it has a good hospital and free-school, both erected in 1584. The church is an ancient Gothic structure, containing many monuments, some of which are very elegant and of great antiquity. At a place called the Brand are annual horse-races. Market on Wednesday Fairs March 7th and July 7th, for horses, cattle and cloth.

**UPRAISE**, *v. a.* Up and raise. To raise up; to exalt.

This would interrupt his joy

In our confusion, and our joy *upraise*

In his disturbance. *Milton's Paradise Lost.*

**UPREAR**, *v. a.* Up and rear. To rear on high

Heaven-born Charity! thy blessings shed;

But meagre Want *uprear* her sickly head. *Guy.*

**UPRIGHT**, *adj. & n. s.* } Up and right. This

**UPRIGHTLY**, *adv.* } word, with its deriva-

**UPRIGHTNESS**, *n. s.* } tives, is in prose ac-

cented on the first syllable; but in poetry seems to be accented indifferently on the first or second. Straight up; perpendicularly erect; hence honest; not declining from moral right: as a noun substantive (ill supported) it seems to mean elevation; orthography: the adverb and noun substantive correspond with the adjective.

They are *upright* as the palm-tree. *Jeremiah x.*

Men by nature apter to rage than deceit; not greatly ambitious, more than to be well and *uprightly* dealt with. *Sidney.*

Such neighbour nearness should not partialize

The' unstopping firmness of my *upright* soul. *Shaksp.*

In the morning, taking of somewhat of easy digestion, as milk, furnishes nourishment: but this should be done sitting *upright*, that the milk may pass more speedily to the stomach. *Bacon's Natural History.*

Princes in judgment, and their delegate judges, must judge the causes of all persons *uprightly* and impartially, without any personal consideration. *Taylor.*

You have the orthography, or *upright*, of this ground-plat, and the explanation thereof, with a scale of foot and inches. *Mozon.*



The hypocrite bends his principles and practice to the fashion of a corrupt world ; but the truly upright man is inflexible in his *uprightness*, and unalterable in his purpose. *Aiterbury.*

**UPRISE', v. n.** Up and rise. To rise from decumbiture.

Thou knowest my down sitting and mine *uprising*.

*Psalm cxxxix.*

*Uprise* Sir Guyon.

*Spenser.*

Was that the king that spurred his horse so hard Against the steep *uprising* of the hill ? *Shakspeare.*

*Uprise* the virgin with the morning light, Obedient to the vision of the night. *Pope.*

**UP'ROAR, n. s. & v. a.** Belg. *oproer*. Accented on the first syllable in prose ; in verse, indifferently on either. Tumult ; bustle ; disturbance ; confusion : to throw into confusion. Obsolete.

The Jews, which believed not, set all the city on an *uproar*. *Acts xvii. 5.*

Had I power, I should Pour the sweet milk of concord into hell, *Uproar* the universal peace, confound All unity on earth. *Shakspeare.*

It were well if his holiness had not set the world in an *uproar*, by nourishing of war. *Raleigh.*

Others, with vast Typhæan rage more fell, Rend up both rocks and hills, and ride the air In whirlwind : hell scarce holds the wild *uproar*. *Mil.*

**UPROOT', v. a.** Up and root. To tear up by the root.

Orpheus could lead the savage race, And trees *uprooted* left their place, Sequacious of the lyre. *Dryden.*

**UPROUSE', v. a.** Up and rouse. To waken from sleep ; to excite to action.

Thou art *uproused* by some distemperature. *Shaksp.*

**UPSAL**, an old town of Sweden, we see of an archbishop, in a district of the same name, province of Upland, is situated on the river Sala, which divides it into two parts. Most of the private houses are of wood ; but the public buildings are of stone or brick. The cathedral is large, and was erected in the thirteenth century on the model of Notre Dame at Paris. The university was founded in the fifteenth century, and the number of students at present exceeds 1000. It can boast of Linnaeus, Celsus, and a number of distinguished professors ; has a valuable library founded by Gustavus Adolphus, and an observatory, botanical garden, cabinets of natural history and mineralogy, &c. The royal castle and gardens, and the residence of the archbishop, are also worth notice. This town was long the residence of the Swedish monarchs, who once bore the title of kings of Upsal. The ceremony of the election and sanction given by the people took place in a neighbouring plain, where are still shown the stones on which were inscribed the name of the sovereign, and the year of his accession. The coronation of the kings of Sweden is still performed here. Population about 5000. Thirty-five miles north of Stockholm.

**UPSHOT', n. s.** Up and shot. Conclusion ; end ; last amount or event.

With this he kindleth his ambitious spighte To like desire and praise of noble fame, The only *upshot* whereto he doth aim. *Hubbard.*

I cannot pursue with any safety this sport to the *upshot*. *Shakspeare.*

Upon the *upshot*, afflictions are but the methods of a merciful Providence., to force us upon the only means of setting matters right. *L'Estrange.*

**UPSIDE** Down. adverbial form of speech.

In his lap a mass of coin he told, And turned *upside down*, to feed his eye And covetous desire with his huge treasure. *Spenser.*

The flood did not so turn *upside down* the face of the earth, as thereby it was made past knowledge, after the waters were decreased. *Raleigh.*

**UPSPRING, n. s.** Up and spring. This word seems to signify upstart ; a man suddenly exalted. Not used.

The king doth wake to-night, and takes his rouse ; Keeps wassel, and the swaggering *upspring* reels. *Shakspeare.*

**UPSTAND', v. n.** Up and stand. To be erected. Sea-calves unwonted to fresh rivers fly ; The water snakes with scales *upstanding* die. *May.*

**UPSTART', v. n. & n. s.** Up and start. To spring up suddenly : one suddenly raised or starting up.

He *upstarted* brave Out of the well, wherein he drenched lay, As eagle fresh out of the ocean wave. *Spenser.*

Mushrooms have two strange properties ; the one, that they yield so delicious a meat ; the other, that they come up so hastily, even in a night, and yet they are unsown : and therefore such as are *upstarts* in state, they call in reproach mushrooms. *Bacon.*

Inordinate desires, And *upstart* passions, catch the governmen. From reason. *Milton.*

**UPSTAY', v. a.** Up and stay. To sustain : support.

Them she *upstays* Gently with myrtle band : mindless the while Herself, though fairest unsupported flower. *Milton.*

**UPSWARM', v. a.** Up and swarm. To raise in a swarm. Out of use.

You've taken up the subjects of my father, And both against the voice of heaven and him Have here *upswarmed* them. *Shakspeare.*

**UPTAKE', v. a.** Up and take. To take into the hands.

He hearkened to his reason and the child *Uptaking*, to the palmer gave to bear. *Spenser.*

**UPTON** (James), was born at Taunton, and educated at Exeter College, Oxon, became rector of Rissington, and prebendary of Rochester. He published *Epictetus*, 2 vols. 4to ; *Spenser's Faerie Queen*, and *Observations on Shakspeare*, 8vo.

**UPTON-ON-SEVERN**, a market-town in Pershore hundred, Worcestershire, on the banks of the Severn, ten miles south of Worcester, and 109½ from London. The town is neat and well built. The church an extremely neat building, with a square tower ; erected in 1758. This place carries on a considerable traffic, by barges, on the Severn, over which it has a stone bridge of six arches. Here are two banking houses, and a good charity-school for girls. Market on Thursday. Fairs first Thursday after Midlent, Thursday in Whitsun-week and before St. Matthew's day, and September.

**UPTRAIN', v. a.** Up and train. To bring up ; to educate. Not used.

King Lear in happy peace long reigned, But had no issue male him to succeed, But three fair daughters, which were well *uptrained* In all that seemed fit for kingly seed. *Spenser.*

**UPTURN', v. a.** Up and turn. To throw up ; to furrow.

So scented the grim feature, and *upturned* His nostrils wide into the murky air. *Milton.*

Beyond all marks, with many a giddy round Down rushing, it *upturns* a hill of ground. *Pope.*

**UPUPA**, in ornithology, a genus belonging to the order of picæ. The beak is arcuated, convex, and something blunt; the tongue is obtuse, triangular, entire, and very short; and the feet are fitted for walking. There are ten species; one of which, the epops, hoopoe, or dung bird, is frequently seen in Britain. It may be readily distinguished from all others that visit this island by its beautiful crest, which it can erect or depress at pleasure. It is in length fifteen inches; the bill is black, two inches and a half long, slender, and incurvated; the irides are hazel: the crest consists of a double row of feathers, the highest about two inches long; the tips are black, their lower part of a pale orange color; the neck is of a pale reddish brown; the breast and belly white; the lesser coverts of the wings are of a light brown; the back, scapulars, and wings, crossed with broad bars of white and black; the rump is white; the tail consists of only ten feathers, white marked with black, in form of a crescent, the horns pointing towards the end of the feathers. The legs are short and black; the exterior toe is closely united at the bottom to the middle toe. According to Linnæus, it takes its name from its note, which has a sound similar to the word; or it may be derived from the French *huppe*, or crested: it breeds in hollow trees, and lays two ash-colored eggs: it feeds on insects, which it picks out of ordure of all kinds. Dr. Pallas affirms that it breeds in preference in putrid carcases; and that he had seen the nest of one in the privy of an uninhabited house in the suburbs of Tzaritsyn.

**UPWARD**, *adj.*, *n. s.*, &c. } Up and Saxon  
Up'wards, *adv.* { *adv.* } years. Directed to a higher part; the top or highest part; towards a higher place or position; more than; toward the source of a stream.

Looking inward, we are stricken dumb; looking up-  
ward, we speak and prevail. Hooker.

I have been your wife in this obedience

Upward of twenty years; and have been blest

With many children by you. *Shakspeare. Henry VIII.*

Dagon, sea-monster! upward man,

And downward fish.

Milton.

A man on a cliff is at liberty to leap twenty yards downwards into the sea, not because he has power to do the contrary action, which is to leap twenty yards upwards, for that he cannot do; but he is therefore free, because he has a power to leap, or not to leap. Locke.

Be Homer's works your study;

Thence form your judgment, thence your notions bring,  
And trace the muses upward to their spring. Pope.

**UPWIND**, *v. a.* Pret. & part. pass. upwound.  
Up and wind. To convolve.

As she lay upon the dirty ground,

Her huge long tail her den all overspread,

Yet was in knots and many boughs upwound. Spenser.

**UR**, in ancient geography, a town of Mesopotamia, situated between the Tigris and Nisibis; taken by some for Ur of the Chaldees, the residence of Abraham. What seems to confirm this is, that from Ur to Haran, the other residence of the patriarch, the road lies directly for Palestine. And it is no objection that Ur is said to be in Mesopotamia, because the parts next the Tigris were occupied by the Chaldeans, as seems to be confirmed from Acts vii. 2, 4. It is called Orche by Strabo, Orchoe by Ptolemy. The Chaldean philosophers had a kind of university in it, for teaching astronomy, astrology, magic, &c.

**URANIA**, one of the nine Muses. She presided over Astronomy. She was the mother of Hy-

men the god of marriage, and of the poet Linus. She is represented by painters as very young, dressed in an azure-colored robe powdered with stars, and crowned with stars, and holding a globe in her hands, with mathematical and astronomical instruments around her.

**URANIA**, a name of Venus, as a celestial goddess.

**URANIA**, in astronomy. See **HERSCHEL**.

**URANIUM**, uranite. This metal was discovered by Klaproth in the year 1789. It exists combined with sulphur, and a portion of iron, lead, and silex, in the mineral termed pechblende, or oxide of uranium. Combined with carbonic acid it forms the chalcocite, or green mica; and mixed with oxide of iron it constitutes the uranitic ochre. It is always found in the state of an oxide, with a greater or smaller portion of iron, or mineralized with sulphur and copper. The ores of uranium are of a blackish color, inclining to a dark iron gray, and of a moderate splendor: they are of a close texture, and, when broken, present a somewhat uneven, and, in the smallest particles, a conchoidal surface. They are found in the mines of Saxony.

Uranium exhibits a mass of small metallic globules, agglutinated together. Its color is a deep gray on the outside; in the inside it is a pale brown. It is very porous; and is so soft that it may be scraped with a knife. It has but little lustre. Its specific gravity is between eight and nine. It is more difficult to be fused than even manganese. When intensely heated with phosphate of soda and ammonia, or glacial phosphoric acid, it fuses with them into a grass-green glass. With soda or borax it melts only into a gray, opaque, scoriaceous bead. It is soluble in sulphuric, nitric, and muriatic acids. It combines with sulphur and phosphorus, and alloys with mercury. It has not yet been combined with other combustible bodies. It decomposes the nitric acid and becomes converted into a yellow oxide. The action of uranium alone upon water, &c., is still unknown, probably on account of its extreme scarcity.

In order to obtain uranium the pechblende is first freed from sulphur by heat, and cleared from the adhering impurities as carefully as possible. It is then digested to nitric acid; the metallic matter that it contains is thus completely dissolved, while part of the sulphur remains undissolved, and part of it is dissipated under the form of sulphureted hydrogen gas. The solution is then precipitated by a carbonated alkali. The precipitate has a lemon-yellow color when it is pure. This yellow carbonate is made into a paste with oil and exposed to a violent heat, bedded in a crucible well lined with charcoal.

Klaproth obtained a metallic globule twenty-eight grains in weight by forming a ball of fifty grains of the yellow carbonate with a little wax, and by exposing this ball in a crucible lined with charcoal to a heat equal to 170° of Wedgwood's pyrometer. Richter obtained in a single experiment 100 grains of this metal, which seemed to be free from all admixture. There are probably two oxides of uranium, the protoxide, which is a grayish black, and the peroxide which is yellow.

**URANOS**. See **URANUS**.

**URANOSCOPIUS**, in ichthyology, a genus of fishes belonging to the order of jugulares. The head is large, rough, and depressed, the upper jaw being shorter than the under one; there are six dentated rays in the membrane of the gills; and



the anus is in the middle of the body. There are two species; one of which is found in the Mediterranean Sea.

VRANTSCHIA, a district of European Turkey, in Moldavia, containing twelve villages and about 2000 farms.

URBAN I. (pope) succeeded Calixtus I. A. D. 223. He was beheaded during the persecution under Severus, in 230.

URBAN II. succeeded Victor III. in 1088, and promoted the great crusade. He died in 1099.

URBAN III. succeeded Lucius III. in 1185. He had great disputes with the emperor Frederick Barbarossa, and died in 1187.

URBAN IV. succeeded Alexander IV. in 1261. He was haughty and superstitious. He died in 1264.

URBAN V. succeeded Innocent VI. in 1362. He removed the papal seat from Avignon to Rome; but died on a visit to Avignon in 1370.

URBAN VI. was elected in 1378. His severity was so great, that a party of the cardinals chose Robert of Geneva as antipope, by the name of Clement VII. Urban persecuted his opponents violently, but died in 1389.

URBAN VII. succeeded pope Sixtus V. in 1590, but died the same year, twelve days after his election.

URBAN VIII. succeeded pope Gregory XV. in 1623, and died in 1644.

URBAN IX., Barberini of Florence, was elected in 1633. He condemned the Jansenists; was a man of genius, and very learned. His Latin poems were published at Paris in folio; and his Italian poems at Rome in 1640, 12mo. He died in 1649.

URBANITY, *n. s.* Fr. *urbanité*; Latin *urbanitas*. Civility; elegance; politeness; merriment; facetiousness.

A rustical severity banishes all *urbanity*, whose harmless condition is consistent with religion. *Browne.*

Moral doctrine, and *urbanity*, or well-mannered wit, constitute the Roman satire. *Dryden.*

URBINO, a town in the states of the church, Italy, the capital of the delegation of this name, is situated on a mountain, is the see of an archbishop, the seat of a university, and contains a population of 4800. It has likewise a college and an institution under the singular name of *Academia Assurditorum*; but being situated at a distance from any great road it is seldom visited. Its only remarkable edifice is the ducal palace. It was the birth-place of Raphael. Forty miles north by west of Ancona, and fifty south by east of Ravenna.

URCEUS (Anthony Codrus), a learned Italian, born in 1446. His works, consisting of Letters, Speeches, and Poems, were published after his death. Being disgusted with the world, by various misfortunes, he retired into a wood, where he died in 1500.

URCEOLA, a lately discovered genus of the pentandria class, and monogynia order of plants, and belonging to the thirtieth natural order, or class called *contortæ*, by Linnæus in his natural method. The genus is thus characterised by Dr. Roxburgh:—Calyx beneath five-toothed; coral one-petaled, pitcher-shaped, with its contracted mouth five-toothed; nectary entire, surrounding the germs; follicles two, round, drupaceous; seeds numerous, immersed in pulp. There is but one known species, which the same eminent botanist

describes thus:—*U. elastica*; shrubby, twining, leaves opposite, oblong, panicles terminal, is a native of Sumatra, Prince of Wales's Island, and the Malay countries. Stem woody, climbing over trees, &c., to a very great extent; young shoots twining, and a little hairy; bark of the old woody parts thick, dark-colored, considerably uneven, a little scabrous, on which are found several species of moss, particularly large patches of lichen; the wood is white, light, and porous. Leaves opposite, short petiolated, horizontal, ovate, oblong, pointed, entire, a little scabrous, with a few scattered white hairs on the under side. *Stipulus* none. Panicles terminal, brachiate, very ramous. Flowers numerous, minute, of a dull greenish color, and hairy on the outside. Bracts lanceolate, one at each division and subdivision of the panicle. Calyx perianth, one-leaved, five-toothed, permanent. Corol one-petaled, pitcher-shaped, hairy mouth much contracted, five-toothed, divisions erect, acute, nectary entire, cylindric, embracing the lower two-thirds of the germs. Stamens, filaments five, very short from the base of the corol. Anthers arrow-shaped, converging, bearing their pollen in two grooves on the inside near the apex; between these grooves and the insertions of the filaments they are covered with white soft hairs. Pistil, germs two; above the nectary they are very hairy round the margins of their truncated tops. Style single, shorter than the stamens. Stigma ovate, with a circular band, dividing it into two portions of different colors. Per. Follicles two, round, laterally compressed into the shape of a turnip, wrinkled, leathery, about three inches in their greatest diameters, one-celled, two-valved. Seeds very numerous, reniform, immersed in firm fleshy pulp. From wounds made in the bark of this plant there oozes a milky fluid, which, on exposure to the air, separates into an elastic coagulum, and watery liquid, apparently of no use after the separation takes place. This coagulum is not only like the American caoutchouc or Indian rubber, but possesses the same properties. See *CAOUTCHOUC*. The chemical properties of this vegetable milk, while fresh, were found by Mr. Howison, late surgeon on Prince of Wales's Island, surprisingly to resemble those of animal milk.

URCHIN, *n. s.* Arm. *heureuchin*; Lat. *erinaucus*. A hedge-hog; any little troublesome thing or person.

Thus in the glebe the deadly nightshade grows,  
Flaunts in the sun, and mingles with the rose,  
The specious bane the prowling urchin spies;  
Touch! touch it not! He gorges it, and dies. *Whyte.*

*Urchins* shall, for that vast of night that they may work,

All exercise on thee. *Shakespeare.*

Pleased Cupid heard, and checked his mother's pride:

And who's blind now, mamma? the urchin cried.

*Prior.*

UREA, a new salt lately discovered, of which Dr Thomson gives the following account:—‘Urea may be obtained by the following process:—Evaporate by a gentle heat a quantity of human urine, voided six or eight hours after a meal, till it be reduced to the consistence of a thick syrup. In this state, when put by to cool, it concretes into a crystalline mass. Pour at different times upon this mass four times its weight of alcohol, and apply a gentle heat. A great part of the mass will

be dissolved, and there will remain only a number of saline substances. Pour the alcohol solution into a retort, and distil by the heat of a sand-bath, till the liquid, after boiling some time, is reduced to the consistence of a thick syrup. The whole of the alcohol is now separated, and what remains in the retort crystallises as it cools. These crystals consist of the substance called urea. It was first described by Rouelle the younger in 1773, under the name of the saponaceous extract of urine. He mentioned several of its properties; but very little was known of it till Fourcroy and Vauquelin published their experiments on it in 1799. These celebrated chemists have named it urea, which has been generally adopted. Urea obtained thus has the form of crystalline plates crossing each other in different directions. Its color is yellowish white. It has a fetid smell, somewhat resembling garlic or arsenic; its taste is strong and acrid, resembling that of ammoniacal salts. It is very viscid and difficult to cut, and has a good deal of resemblance to thick honey. When exposed to the open air, it very soon attracts moisture, and is converted into a thick brown liquid. It is extremely soluble in water; and during its evolution a considerable degree of cold is produced. Alcohol dissolves it with facility, but scarcely in so large a proportion as water. The alcohol solution yields crystals much more readily on evaporation than the solution in water. When nitric acid is dropped into a concentrated solution of urea in water, a great number of bright pearl-colored crystals are deposited, composed of urea and nitric acid. No other acid produces this singular effect. The concentrated solution of urea in water is brown; but it becomes yellow when diluted with a large quantity of water. The infusion of nutgalls gives it a yellowish brown color, but causes no precipitate. Neither does the infusion of tan produce any precipitate. When heat is applied to urea it very soon melts, swells up, and evaporates with an insupportably fetid odor. When distilled there comes over first benzoic acid; then carbonate of ammonia in crystals; some carbonated hydrogen gas; with traces of Prussic acid and oil; and there remains a large residuum, composed of charcoal, muriate of ammonia, and muriate of soda. The distillation is accompanied with an almost insupportably fetid alliaceous odor: 288 parts of urea yield by distillation 200 parts of carbonate of ammonia, ten parts of carbonated hydrogen gas, seven parts of charcoal, and sixty-eight parts of benzoic acid, muriate of soda and muriate of ammonia. The three last ingredients Fourcroy and Vauquelin consider as foreign substances, separated from the urine by the alcohol at the same time with the urea. Hence it follows that 100 parts of urea, when distilled, yield 92·027 carbonate of ammonia; 4·608 carbonated hydrogen gas; and 3·225 charcoal. Now 200 parts of carbonate of ammonia, according to Fourcroy and Vauquelin, are composed of eighty-six ammonia, ninety carbonic acid gas, and twenty-four water. Hence it follows that 100 parts of urea are composed of 39·5 oxygen, 32·5 azote, 14·7 carbon, 13·3 hydrogen. But it can scarcely be doubted that the water, which was found in the carbonate of ammonia, existed ready formed in the urea before the distillation. When the solution of urea in water is kept in a boiling heat, and new water is added as it evaporates, the urea is gradually decomposed, a very great quan-

tity of carbonate of ammonia is disengaged, acetic acid is formed, and some charcoal precipitates. As analysed by Prout and Berard the following are its constituents:—

|          | Per Cent. | Per Cent. | Per Atom. |
|----------|-----------|-----------|-----------|
| Hydrogen | 10·80     | 6·66      | 2 = 2·3   |
| Carbon   | 19·40     | 19·99     | 1 = 7·5   |
| Oxygen   | 26·40     | 26·66     | 1 = 10·0  |
| Azote    | 43·40     | 43·66     | 1 = 17·3  |
|          | 100·00    | 100·00    | 37·4      |

Uric, or lithic acid, is a substance quite distinct from urea in its composition.

VREDEN, a town of Prussian Westphalia, on the small river Brehkels, and the confines of Zutphen. Population 2000. Thirty miles W. S. W. of Munster.

URENA, in botany, Indian mallow, a genus of plants in the class of monodelphia, and order of polyandria; ranking according to the natural method in the thirty-sixth order, pomaceæ.

URETHRA, *n. s.* French *uretre*; Gr. *σπινθηρα*. The passage of the urine.

Caruncles are loose flesh arising in the *urethra*.

Wiseman.

URGE, *v. a. & v. n.*

URGECY, *n. s.*

URGENT, *adj.*

URGER, *n. s.*

Latin *urgeo*. To incite; push; press by motives; importune; provoke: as a verb neuter to press forward: urgency is pressure: urgent, cogent; pressing: the adverb and noun substantive corresponding.

The Egyptians were *urgent* upon the people, that they might send them out in haste. *Exodus*, xii. 33.

He *urged* sore,

With piercing words and pitiful implore,

Him hasty to arise.

Spenser.

*Urge* the necessity and state of times,

And be not peevish.

*Shakspeare*. *Richard III.*

This ever hath been that true cause of more wars than upon all other occasions, though it least partakes of the *urgent* necessity of state.

*Raleigh*.

The heathens had but uncertain apprehensions of what *urges* men most powerfully to forsake their sins.

*Tillotson*.

This *urges* me to fight, and fires my hand.

Man! and for ever? wretch! what wouldst thou have?

Heir *urges* heir, like wave impelling wave.

*Pope*.

Being for some hours extremely pressed by the necessities of nature, I was under great difficulties between *urgency* and shame.

*Gulliver's Travels*.

URGEL, a strong town of Spain, in Catalonia, on the river Segre. It is a bishop's see, and has 3200 inhabitants, with manufactures of linen and cotton. There is a vitriol mine in the neighbourhood. Seventy-eight miles N. N. W. of Barcelona, and 296 E. N. E. of Madrid.

URGEWONDER, *n. s.* A sort of grain.

This barley is called by some *urgewonder*. *Mortimer*.

URGUNG, or URGHENZ, the name given to an extensive tract of territory on the Lower Oxus, near its junction with the Aral, and between that lake and the Caspian. It consists of an immense tract of desert, traversed by wandering and predatory hordes; but a few spots maintain a population collected into fortified towns. The principal of these bears the name of the region, and is about four miles in circuit, surrounded by walls of earth. One long street, covered above, forms a market, at which the little trade of the surrounding country is carried on.



URI, a canton in the central part of Switzerland, bounded on the north by Unterwalden, and on the east by the country of the Grisons. Its superficial extent is 640 square miles, but its population does not exceed 14,000, being thinly scattered amidst bleak and barren mountains, some of which attain an elevation of 8000, 9000, or 10,000 feet. This canton is traversed in all its extent by the Reuss: it contains a number of small lakes and mountain streams. The temperature necessarily varies with the degree of elevation. The road from Germany to Italy passing through this canton gives it the benefit of some transit trade. The canton is divided into the districts of Uri and Urseren; its government is democratic, and public business is transacted at the petty town of Altorf. The inhabitants are Catholics.

U'RIM, *n. s.* See below.

He in celestial panoply all armed,  
Of radiant urim, work divinely wrought. *Milton.*

Urim and thummim were something in Aaron's breast-plate; but what, critics and commentators are by no means agreed. The word *urim* signifies light, and thummim perfection. *Newton's Notes on Milton.*

URIM AND THUMMIM, among the ancient Hebrews, a certain oracular manner of consulting God, which was done by the high priest dressed in his robes, and having on his pectoral or breast-plate. Various have been the sentiments of commentators concerning the urim and thummim. Josephus and several others maintain that it meant the precious stones set in the high priest's breast-plate, which, by extraordinary lustre, made known the will of God to those who consulted him. Spencer believes that the urim and thummim were two little golden figures shut up in the pectoral as in a purse, which gave responses with an articulate voice. In short there are as many opinions concerning the urim and thummim as there are particular authors that wrote about them. The safest opinion according to Broughton seems to be, that the words urim and thummim signify some divine virtue and power annexed to the breast plate of the high priest, by which an oracular answer was obtained from God when he was consulted by the high priest; and that this was called urim and thummim to express the clearness and perfection which these oracular answers always carried with them; for urim signifies 'light,' and thummim 'perfection'; these answers not being imperfect and ambiguous like the heathen oracles, but clear and evident. The use made of the urim and thummim was to consult God in difficult cases relating to the whole state of Israel; and sometimes in cases relating to the king, the sanhedrim, the general of the army, or some other great personage. See HEBREW.

U'RINAL, *n. s. & v. n.* *Fr. urine; Lat. urina.*  
U'RINE, *n. s.* *Animal water: to make*  
U'RINARY, *adj.* *water: urinal, a bottle*  
U'RINATIVE, *in which urine is kept:*  
U'RINOUS. *urinary is relating to*  
urine: urinative, provoking urine: urinous, of the nature of urine.

These follies shine through you, like the water in an urn. *Shakspeare.*

Places where men *urine* commonly have some smell of violets. *Bacon.*

Medicines *urinate* do not work by rejection and indigestion, as solutive do. *Id.*

A candle out of a musket will pierce through an

inch board, or an *urinal* force a nail through a plank. *Browne.*

Diureticks that relax the *urinary* passages, should be tried before such as stimulate. *Arbuthnot.*

The chyle cannot pass by *urine* or sweat. *Id.*

The putrid matter, being distilled, affords a water impregnated with an *urinous* spirit, like that obtainable from animal substances. *Id.*

URINAL, in chemistry, is an oblong glass vessel, closed for making solutions, and so called for its resemblance to the glasses in which urine is kept.

U'RINATOR, *n. s.* *Fr. urinateur; Lat. urinator.*  
A diver; one who searches under water.

Those relations of *urimators* belong only to those places where they have dived, which are always rocky. *Ray.*

URINE, in its natural state, is transparent, of a yellow color, a peculiar smell and saline taste. Its production as to quantity, and in some measure quality, depends on the seasons and the peculiar constitution of the individual, and is likewise modified by disease. It is observed that perspiration carries off more or less of the fluid which would else have passed off by urine; so that the profusion of the former is attended with a diminution of the latter.

From the alkaline smell of urine kept for a certain time, and other circumstances, it was formerly supposed to be an alkaline fluid; but, by its reddening paper stained blue with limus or the juice of radishes, it appears to contain an excess of acid. The numerous researches made concerning urine have given the following as its component parts:—1, water; 2, urea; 3, phosphoric acid; 4, 5, 6, 7, phosphates of lime, magnesia, soda, and ammonia; 8, 9, 10, 11, lithic, rosacic, benzoic, and carbonic acid; 12, carbonate of lime; 13, 14, muriates of soda and ammonia; 15, gelatin; 16, albumen; 17, resin; 18, sulphur. Muriate of potash may sometimes be detected in urine by cautiously dropping into it some tartaric acid; as may sulphate of soda, or of lime, by a solution of muriate of barytes, which will throw down sulphate of barytes together with its phosphate; and these may be separated by a sufficient quantity of muriatic acid, which will take up the latter.

Urine soon undergoes spontaneous changes, which are more or less speedy and extensive according to its state as well as the temperature of the air. Its smell, when fresh made and healthy, is somewhat fragrant; but this presently goes off and is succeeded by a peculiar odor termed *urinous*. As it begins to be decomposed its smell is not very unlike that of sour milk; but this soon changes to a fetid alkaline odor. It must be observed, however, that turpentine, asparagus, and many other vegetable substances taken as medicine, or used as food, have a very powerful effect on the smell of the urine. Its tendency to putrefaction depends almost wholly on the quantity of gelatin and albumen it contains; in many cases, where these are abundant, it comes on very quickly indeed.

According to Berzelius, healthy human urine is composed of water 933, urea 30.10, sulphate of potash 3.71, sulphate of soda 3.16, phosphate of soda 2.94, muriate of soda 4.45, phosphate of ammonia 1.65, muriate of ammonia 1.50, free acetic acid, with lactate of ammonia, animal matter soluble in alcohol, urea adhering to the preceding, altogether 17.14, earthy phosphates, with a trace of

fluat of lime 1·0, uric acid 1, mucus of the bladder 0·32, silica 0·3, in 1000·0. The phosphate of ammonia and soda, obtained from urine by removing by alcohol the urea from its crystallised salts, was called fusible salt of urine, or microcosmic salt; and was much employed in experiments with the blowpipe. The changes produced in urine by disease are considerable, and of importance to be known. It is of a red color, small in quantity, and peculiarly acid, in inflammatory diseases, but deposits no sediment on standing. Corrosive muriate of mercury throws down from it a copious precipitate. Toward the termination of such diseases it becomes more abundant, and deposits a copious pink-colored sediment, consisting of rosacic acid with a little phosphate of lime and uric acid.

In jaundice it contains a deep yellow-coloring matter, capable of staining linen. Muriatic acid renders it green, and this indicates the presence of bile. Sometimes, too, according to Fourcroy and Vauquelin, it contains a substance analogous to the yellow acid, which they formed by the action of nitric acid on muscular fibre. In hysterical affections it is copious, limpid, and colorless, containing much salt but scarcely any urea or gelatin. In dropsy the urine is generally loaded with albumen, so as to become milky, or even coagulate by heat, or on the addition of acids. In dropsy from diseased liver, however, no albumen is present, but the urine is scanty, high colored, and deposits the pink-colored sediment. In dyspepsy, or indigestion, the urine abounds in gelatin, and putrefies rapidly. In rickets the urine contains a great deal of a calcareous salt, which has been supposed to be phosphate of lime, but according to Bonhomme it is the oxalate.

Some instances are mentioned in which females have voided urine of a milky appearance, and containing a certain portion of the caseous part of milk. But among the most remarkable alterations of urine is that in the diabetes, when the urine is sometimes so loaded with sugar as to be capable of being fermented into a vinous liquor. Upwards of one-twelfth of its weight of sugar was extracted from some diabetic urine by Cruickshank, which was at the rate of twenty-nine ounces troy a day from one patient. In this disease, however, the urine, though always in very large quantity, is sometimes not sweet but insipid.

The urine of some animals, examined by Fourcroy, Vauquelin, and Rouelle, jun., appears to differ from that of man in wanting the phosphoric and lithic acids, and containing the benzoic. That of the horse, according to the former two, consists of benzoate of soda ·024, carbonate of lime ·011, carbonate of soda ·009, muriate of potash ·009, urea ·007, water and mucilage ·940. Giese, however, observes that the proportion of benzoate of soda varies greatly, so that sometimes scarcely any can be found. Notwithstanding the assertions of these chemists, that the urine of the horse contains no phosphoric acid, Giobert affirms that phosphorus may be made from it. That of the cow, according to Rouelle, contains carbonate, sulphate, and muriate of potash, benzoic acid and urea; that of the camel differed from it in affording no benzoic acid; that of the rabbit, according to Vauquelin, contains the carbonates of lime, magnesia, and potash, sulphates of potash and lime, muriate of potash, urea, gelatin, and sulphur. All these appear to contain some free alkali, as the tur. syrup of violets green.

In the urine of domestic fowls Fourcroy and Vauquelin found lithic acid.

Urine has been employed for making phosphorus, volatile alkali, and sal ammoniac; moulds to the produce of nitre beds; and it is very useful in a putrid state for scouring woollens.

URINE, BLUE. - In certain morbid conditions of the body a blue urine has been voided, which M. Braconnot has given an account of in the twentieth volume of the *Annales de Chimie et Physique*, p. 252. It is a peculiar substance which gives the color. He proposes to call it cyanourine. It resembles the organic salifiable bases in combining with acids, in refusing to dissolve in alkalis, and in the large proportion of carbon which it contains.

URN, *n.s.* *Fr. urne*; *Lat. urna*. Any vessel, of which the mouth is narrower than the body; in particular the ancient vessel in which the ashes of the human body were kept.

Or lay these bones in an unworthy urn,  
Tombless, with no remembrance over them. *Shaksp.*

Vesta is not displeased, if her chaste urn  
Do with repaired fuel burn:  
But my saint frowns though to her honoured name  
I consecrate a never-dying flame. *Carew.*

URN (*Lat. urna*). In modelling, sculpture, &c., a species of vase of a roundish form, but largest in the middle, destined, among the ancients, to receive and enclose the ashes of the dead; which destination its name, in fact, sufficiently indicates. It is curious to remark that the Romans often made use of Grecian vases, obtained by them in various ways, for this purpose, as is evident from those found in the tombs in the vicinity of Naples, which contain both bones and ashes. See VASE.

Urns are commonly met with in almost all collections of antiquities, and Montfaucon, in particular, has drawn and engraved a great number of them. In Millin's *Monumens Inédits*, vol. i., plates 3 and 20, two are published, extracted from the interesting and comprehensive collection of M. Van-Hoorn. The substances employed in the construction of these vessels are numerous. Amongst them are gold, bronze, glass, terra-cotta, marble, and porphyry. They were made of all manner of shapes and sizes; some had smooth surfaces, others were engraved in basso relievo. Many have been discovered bearing inscriptions on labels (see INSCRIPTION); others with the name only of the party to whose remains they were devoted. Several have no other character than the two letters D. M. (*Dis Manibus, to the Shadowy Deities.*) Others, again, present nothing more than the name of the artist by whom they were wrought, written either on the handle or at the bottom. The Egyptians sometimes enclosed in urns their sacred birds, having first had them embalmed. These urns were generally covered with hieroglyphics. See MUMMY. The Romans were in the habit of applying the same term to certain vases destined to receive suffrages in elections. Little vessels have also occasionally been found in ancient tombs, denominated lacrymal urns.

VROON (Henry Cornelius), a Dutch painter. He excelled in sea-fights. He drew the designs for the tapestry in the house of lords, representing the destruction of the Spanish Armada.

UROSCOPY, *n.s.* *Gr. ὄρον* and *σκοπεῖν*. Inspection of urine.

In this work, attempts will exceed performances; it



being composed by snatches of time, as medical vacations, and *uroscopy*, would permit. *Brown.*

**URQUHART** (Sir Thomas), a learned Scottish antiquary. He wrote the life of the admirable Crichton (see **CRICHTON**), and some other tracts.

**URQUIJO** (Mariano Lewis), chevalier de, a modern Spanish minister, was born in Old Castile in 1768, and travelling when very young passed some years in England, where he is said to have acquired those liberal ideas which had much influence on his character. Returning home he published a translation of Voltaire's tragedy on the Death of Cæsar, with a Discourse on the Origin and present State of the Spanish Theatre. He was now employed under the secretary of state count d'Aranda; and, during the ministry of Godoy, became secretary of state for foreign affairs. In this important office he acted on the most enlightened principles, and succeeded in greatly curbing the power of the inquisition and of the clergy. Having, however, offended Godoy he was at length disgraced, and towards the close of 1800 confined at Pampeluna. He languished here several years in the most severe imprisonment, being debarred the use of paper, ink, books, and even light. Ferdinand VII., in 1808, declared the persecutions of Urquijo to be unjust, and he was set at liberty. He endeavoured to prevent that prince from taking his journey to Bayonne, but finally himself accepted the office of secretary of the junta of Spanish notables assembled at Bayonne, and afterwards that of minister of state. He had the satisfaction to see the inquisition suppressed by Buonaparte in 1808, and by the Cortes in 1813. After the reverses of the French in Spain he was obliged to follow king Joseph Buonaparte; and, in 1814, he fixed his residence at Paris. He died there May 3d, 1817.

**URSINUS** (Zacharius), an eminent Protestant divine, born at Breslaw in 1534. In 1558 he became president of the academy of Breslaw, which place he filled with honor: but, turning Calvinist, he went to Zurich, and was soon after made professor of divinity at Heidelberg. He next went to Nieustadt, on the invitation of prince Casimir, to fill the same office there. He died in 1585.

**URSULINES**, in church history, an order of nuns, founded originally by St. Angela of Brescia, in 1537: and so called from St. Ursula, to whom they were dedicated.

**URSUS** (Nicolas Raimarus), a man of uncommon genius, born at Henstedt in Holstein, in 1550. He was first a swine herd, and did not learn to read and write till he was eighteen. But he soon after acquired Latin, Greek, French, mathematics, philosophy, and astronomy, and most of them without a teacher. He taught a new system of astronomy resembling that of Tycho Brahe. He died in 1590.

**URSUS**, the bear, a genus of quadrupeds belonging to the order of fere. There are six fore teeth in the upper jaw, alternately hollow in the inside, and six in the under jaw, the two lateral ones being lobated. The dog-teeth are solitary and conical; the eyes are furnished with a nictitating membrane; the nose is prominent; and there is a crooked bone in the penis. There are ten species, viz. i. *U. Americanus*, the American bear. The color is black; the throat and cheeks of a rusty brown. This species is spread through the whole of America, excepting Chili and Patagonia. They are

also found in Kamtschatka. They reject animal food, even though pressed by hunger, eating nothing but vegetables. They are remarkably fond of potatoes and maize. Dr. Gmelin says, however, that they also feed on fish. The head is more lengthened than that of the European bear; the ears are longer; the hair is more smooth and glossy, blacker and softer; the whole body is much smaller; the nose is longer and more pointed, and of a yellowish or rusty brown color. It is very cowardly, and never attacks mankind unless when provoked, or in defence of its young. It sometimes bites the natives of Kamtschatka when asleep, but never devours them.

2. *U. arctos*, the common bear, has strong, thick, and clumsy limbs; a very short tail; large feet; body covered with very long and shaggy hair; various in its color: the largest are of a rusty brown; the smallest of a deep black: some from the confines of Russia black, mixed with white hairs, called by the Germans silver bear; and some (but rarely) are found in Tartary of a pure white. They inhabit the north parts of Europe and Asia; the Alps of Switzerland, and the ci-devant Dauphine, or department of Drome, Isere, and Upper Alps; Japan and Ceylon; North America and Peru. The brown bears are sometimes carnivorous, and will destroy cattle and eat carrion; but their general food is roots, fruit, and vegetables; they will rob the fields of pease; and, when they are ripe, pluck great quantities up, beat the pease out of the husks on some hard place, eat them, and carry off the straw: they will also, during winter, break into the farmer's yard, and make great havoc among his stock of oats; they are also particularly fond of honey. The flesh of a bear in autumn, when they are excessively fat by feeding on acorns and other mast, is delicate food; and that of the cubs still finer; but the paws of the old bears are reckoned the most exquisite morsel; the fat white, and very sweet; the oil excellent for strains and old pains. In the end of autumn, after they have fattened themselves to the greatest degree, the bears withdraw to their dens, where they continue for a great number of days in total inactivity and abstinence from food, having no other nourishment than what they get by sucking their feet, where the fat lodges in great abundance; their retreats are either in cliffs of rocks, in the deepest recesses of the thickest woods, or in the hollows of ancient trees, which they ascend and descend with surprising agility: as they lay in no winter provisions they are in a certain space of time forced from their retreats by hunger, and come out extremely lean: multitudes are killed annually in America for the sake of their flesh or skin; which last makes a considerable article of commerce. Mr. Kerr mentions five varieties, viz. i. *U. arctos Albus*, the white bear. ii. *U. arctos fuscus*, the brown bear of the Alps. iii. *U. arctos griseus* the gray bear. iv. *U. arctos niger*, the black bear. v. *U. arctos variegatus*, the variegated bear, of various colors.

3. *U. gulo*, the glutton. The body and tail are from three feet and a half to four feet long, and of a glossy black or dark brown color, with a tawny line down the middle of the back. It is larger than the badger. This species inhabit the north parts of America, Asia, and Europe; but are seldom found in Germany or Poland. They dwell chiefly in mountains and forests. They propagate in Janu-



ary and May: the female brings from one to three whelps. They climb well, and are cunning and voracious; devouring all small animals, and even attacking deer; but, unless in self-defence, never attack man. Their smell defends them against dogs. When young they may be tamed. Their fur is much valued. The legs are thick, short, and hairy. The female has six teats. They have four fore teeth in each jaw. There is a white variety.

4. *U. Indicus*, the Indian bear or badger, has a black face; the crown and upper parts white, and the lower black. They inhabit India: the head is small, and nose pointed: they are playful, lively, and good-natured. They are two feet long; the tail four inches.

5. *U. Labradorius*, the Labrador bear or badger, inhabits Labrador and Hudson's Bay; has soft and silky yellow hair; ears short and white, tinged with black. It has five claws on the hind feet, four on the fore. It has thirty-two teeth.

6. *U. lotor*, the racoon, has the upper part of the body covered with hair, ash-colored at the root, whitish in the middle, and tipped with black; tail very bushy, annulated with black; toes black, and quite divided. It inhabits the warm and temperate parts of America; is found also in the mountains of Jamaica, and in the isles of Maria, between the south point of California and cape Corientes, in the South Sea: is easily tamed, very good-natured, and sportive; but as unlucky as a monkey. It is almost always in motion; and very inquisitive, examining every thing with its paws. It makes use of them as hands; sits up to eat; is extremely fond of sweet things, and strong liquors, and will get excessively drunk. It has all the cunning of a fox; and is very destructive to poultry; but will eat all sorts of fruits, green corn, &c. At low water it feeds much on oysters, and will watch their opening, and with its paw snatch out the fish, but is sometimes caught. It climbs nimbly up trees. It is hunted for its skin; the fur is next to that of the beaver for making hats.

7. *U. luscus*, the wolverene, has a black sharp-pointed visage; short rounded ears, almost hid in the hairs; the sides of a yellowish brown, which passes in form of a band quite over the hind part of the back, above the tail; the legs are very strong, thick, and short, of a deep black: the whole body is covered with very long and thick hair, which varies in color according to the season. It inhabits Hudson's Bay and Canada, as far as the straits of Michillimachinac; is found under the name of the glutton in the north parts of Europe and Asia, being a native of the most rigorous climates. It is a most voracious animal, and slow of foot; so is obliged to take its prey by surprise. In America it is called the beaver-eater, watching these animals as they come out of their houses, and sometimes breaking into their habitations and devouring them. It often lurks on trees, and falls on the quadrupeds that pass under; they fasten on the horse, elk, or stag, and continue eating a hole into its body, till the animal falls down with the pain; or else will tear out its eyes: no force can disengage it; yet sometimes the deer in their agony have been known to destroy it by running their head violently against a tree. It devours the isatis or white fox; searches for the traps laid for the sables and other animals; and is often beforehand with the huntsman, who sustains great losses by the glutton; authors have pretended that it feeds so voraciously that at length

it is in danger of bursting; and that it is obliged to ease itself of its load by squeezing it out between two trees. In a wild state it is vastly fierce; a terror to both wolf and bear, which will not prey on it when they find it dead, perhaps on account of its being so very fetid, smelling like a pole-cat: it makes a strong resistance when attacked; will tear the stock from the gun, and pull the traps it is caught into pieces. Notwithstanding this it is capable of being tamed, and of learning several tricks. It burrows and has its den under ground. The skin is sold in Siberia for four or six shillings, at Jakutsk for twelve shillings: and still dearer at Kamtschatka, where the women dress their hair with its white paws, which they esteem a great ornament. The fur is greatly esteemed in Europe: that of the north of Europe and Asia, whose skins are sometimes to be seen in the furriers' shops, is much finer, blacker, and more glossy than that of the wolverene, or American kind. The glutton has by some authors been confounded with the hyæna.

8. *U. maritimus*, the polar or white bear, has a long head and neck; short round ears; great teeth; the hair long, soft, and white, tinged in some parts with yellow: growing to a vast size; the skins of some being thirteen feet long. This animal is confined to the coldest part of the globe; it has been found as far as navigators have penetrated northwards, above lat. 80°. The frigid climes only seem adapted to its nature; for we do not learn from any authority that it is met with farther south than Newfoundland. Its bounds in respect to longitude are also very limited; being an animal unknown except on the shores of Hudson's Bay, Greenland, and Spitzbergen, on one side, and those of Nova Zembla on the other; for such as have appeared in other parts have been brought there involuntarily on floating islands of ice; so that the intermediate countries of Norway and Iceland are acquainted with them but by accident. We cannot trace them farther east than Nova Zembla; though the Frozen Sea, that is continued thence as far as the land of Tschutschki, that lies above Kamtschatka, is equally suited to their nature. During summer the white bears are either resident on islands of ice, or passing from one to another: they swim admirably, and continue that exercise six or seven leagues, and dive with great agility. They bring two young at a time: the affection between the parents and them is so strong, that they would die rather than desert one another. Their winter retreats are under the snow, in which they form deep dens, supported by pillars of the same. They feed on fish, seals, and the carcasses of whales, and on human bodies, which they will greedily tear up: they seem very fond of human blood; and are so fearless as to attack companies of armed men, and even to board small vessels. When on land, they live on birds and their eggs; and, allured by the scent of seals' flesh, often break into and plunder the houses of the Greenlanders: their greatest enemy in the brute creation is the morse, with whom they have terrible conflicts, but are generally worsted, the vast teeth of the former giving it a superiority. The flesh is white, and said to taste like mutton: the fat is melted for train oil, and that of the feet used in medicine: but the liver is very unwholesome, as three of Barentz's sailors experienced, who fell dangerously ill on eating some of it boiled. One of this species was brought over to England a few years ago; it was



very furious, almost always in motion, roared loud, and seemed very uneasy, except when cooled by having pailfuls of water poured on it.

9. *U. meles*, the common badger, is an animal of a very clumsy make, with short thick legs, long claws on the fore feet, and a fetid white matter exuding from the orifice below the tail. It inhabits most parts of Europe as far north as Norway and Russia, and the steep or desert beyond Orenburg, in the Russian Asiatic dominions, north of the Caspian Sea; inhabits also China, and is often found in the butcher's shops in Pekin, the Chinese being fond of them: but a scarce animal in most countries. It seldom appears in the day; confines itself much to its hole; is indolent and sleepy; generally very fat; feeds by night; eats roots, fruits, grass, insects, and frogs: it runs slowly; when overtaken, it comes to bay, and defends itself vigorously; its bite is dangerous. It burrows under ground; makes several apartments, but forms only one entrance from the surface. It is hunted during night for the skin, which serves for pistol-furniture; the hairs for making brushes to soften the shades in painting. Its flesh makes good bacon. Mr. Kerr mentions two varieties of this species: viz. i. *U. meles albus*, the white badger. ii. *U. meles maculatus*, the spotted badger, of a white color spotted with reddish yellow.

10. *U. tetradactylus*, the sand bear, is less than the common badger, and has only four toes on each foot. It is almost destitute of hair, burrows in the ground, and is of a yellowish white.

URTICA, in botany, a genus of plants of the class of monoccia, and order of tetrandria; natural order fifty-third, scabridæ. The small flower has a calyx of four leaves: cor. none: a nectarium minute, central, urn-fashioned. The female a bivalve calyx: and a single, oval, glossy seed. There are twenty-eight species; three of which are British plants: viz. 1. *U. dioica*, common nettle, has a square firm stem, three or four feet high. Leaves heart-shaped, long-pointed, serrated, beset with stings. Flowers in long catkins. The aculei, or stings of the nettle, have a small bladder at their base full of a burning corrosive liquor. Nettle-tops in the spring are often boiled and eaten instead of cabbage-greens. The stalks of nettles are so like in quality to hemp, that in some parts of Europe and Siberia they have been manufactured into cloth, and paper has been made out of them. The whole plant, particularly the root, is esteemed to be diuretic, and has been recommended in the jaundice and nephritic complaints. It is also reckoned astringent; and of service in all kinds of hæmorrhagies, but is at present little used in practice. The roots boiled will dye yarn of a yellow color. The larvæ or caterpillars of many species of butterflies feed on the green plant; and sheep and oxen will readily eat the dried. The common nettle, though it has a place in the *materia medica*, is now very little used. It has lately been recommended, however, by Zannetini, a physician who attended the French army in Italy, as a good substitute in fevers for cinchona.

2. *U. pilulifera*, Roman nettle, has a stalk branched, two or three feet high. Leaves opposite, oval, serrated, stinging. Fruit globose.

3. *U. urens*, less stinging-nettle, has a stem a foot high. Leaves roundish, deeply serrated, opposite, burning. The stings are very curious microscopic objects: they consist of an exceedingly

fine pointed, tapering, hollow substance, with a perforation at the point, and a bag at the base. When the spring is pressed upon, it readily perforates the skin, and at the same time forces up some of the acrimonious liquor contained in the bag into the wound.

URUGUAY, a province or tract of country of South America, bounded north by Guaira in the government of Paraguay, south by the mouth of the river La Plata, east by the province and captainship of Ray in Brasil, and west by the river Parana. Its length from north-east to south-west is somewhat more than 200 leagues, and its width from east to west about 130, although in some parts it is narrower. It is divided by the river of its name into east and west. This rises in the mountains of the kingdom of Brasil, and runs for more than 620 miles in a direct line, with an extraordinary violence, making a terrible noise amongst the rocks, and in the winter season it swells to such a degree as to appear like a sea. The country was inhabited by the Cassapiminian Indians, and is, for the greater part, plain, but abounding in thick woods, in which are infinite numbers of wild animals and birds.

URUGUAY, a small river also of Paraguay, which runs east, and enters the Parana near the grand river Curituba.

URUMEA, a lake of Aderbijan, Persia, about 300 miles in circuit. The water is saltier than that of the sea; no fish can live in it, and it emits a disagreeable sulphureous smell. It contains several islands, the largest of which, forming in the dry season a sort of peninsula, is twenty-five miles in circumference, but only occupied by wild animals. The water is clear.

URUMEA, a very ancient city of Persia, situated on the south-western bank of the lake to which it gives name. It lies in a noble plain, watered by the Shar, and contains a population of 12,000 souls. It is the Thebarma of Strabo, yet cannot boast of a single ruin of any consequence. It is defended by a strong wall and deep ditch, which can be filled with water from the river. Ninety miles S. S. W. of Tabreez.

US. The oblique case of *we*.

The Lord made not this covenant with our fathers, but with *us*, even *us*, who are all of *us* here alive this day. *Deut. v.*

U'SAGE, *n. s.* } Fr. *usage*. Treatment; man-  
U'SAGER. } ners; custom: one who has the  
use of any thing in trust.

A gentle nymph was found,

Hight Antery, excelling all the crew

In courteous *usage*, and unstained hue.

*Spenser.*

Of things once received and confirmed by use, long  
*usage* is a law sufficient.

*Hooker.*

Which way

Mightest thou deserve, or they impose, this *usage*.

*Shakspeare.*

The rest were saved, and made enthralled swaines

*Chapman.*

He consumed the common treasure.

Whereof he being the simple *usager*

But for the state, not in propriety,

Did alien t' his minions.

*Daniel.*

U'SANCE, *n. s.* Fr. *usance*. Use; proper employment; usury.

What art thou,

That here in desert hast thine habitatione,

And these rich heaps of wealth dost hide apart

From the world's eye, and from her right *usage*.

Spenser.

He lends out money gratis, and brings down

The rate of *usance*.

Shakspeare.

USE, *n. s., v. a., & v. n.*

USEFUL, *adj.*

USEFULLY, *adv.*

USEFULNESS, *n. s.*

USELESS, *adj.*

USELESSLY, *adv.*

USELESSNESS, *n. s.*

U'SER.

Lat. *usus*. The act of employing any thing; practice; custom; quality proper for a purpose; interest of money: to use is to employ; treat; accustomed: to be accus-

tomed; be wont; frequent (obsolete): useful is profitable; convenient; valuable: the adverb and noun substantive corresponding: useless, the exact opposite; and its adverb and noun substantive correspond: a user is one who uses.

The fat of the beast that dieth of itself, may be *used* in any other *use*.

Leuiticus vii. 24.

*Use* hospitality one to another, without grudging.

1 Peter iv.

Such things which, by imparting the delight to others, make the *user* thereof welcome, as musick, dancing, hunting, feasting, riding.

Sidney.

Conduct me well

In these strange ways, where never foot did *use*.

Spenser.

That which those nations did *use*, having been also in *use* with others, the ancient Roman laws do forbid.

Hooker.

Why dost thou *use* me thus? I know thee not.

Shakspeare.

Fears *use* to be represented in such an imaginary fashion, as they rather dazzle men's eyes than open them.

Bacon.

If it be good thou hast received it from God, and then thou art more obliged to pay duty and tribute, *use* and principal, to him.

Taylor.

He was unhappily too much *used* as a check upon the lord Coventry; and when that lord perplexed their counsels with inconvenient objections, the authority of the lord Manchester was still called upon.

Clarendon.

Ye valleys low, where the mild whispers *use*

Of shades, and wanton winds, and gushing brooks.

Milton.

The hurtful teeth of vipers are *useless* to us, and yet are parts of their bodies.

Boyle.

Sweetness; truth, and every grace

Which time and *use* are wont to teach,

The eye may in a moment reach,

And read distinctly in her face.

Waller.

Rice is of excellent *use* for illnesses of the stomach, that proceed from cold or moist humours: a great digester and restorer of appetite.

Temple.

He made a learned discourse on the trouble, *useless-*ness, and indecency of foxes wearing tails.

L'Estrange.

Gold and silver being little *useful* to the life of man, in proportion to food, raiment, and carriage, has its value only from the consent of men.

Locke.

Like sauntering humours, some, out of custom, let a good part of their lives run *uselessly* away, without business or recreation.

Id.

Distinct growth in knowledge carries its own light in every step of its progression; than which nothing is of more *use* to the understanding

Id.

I love to *use* people according to their own sense of good breeding.

Taitler.

He would convince them of the vanity and *useless-*ness of that learning, which makes not the possessor a better man.

South.

The grandeur of the commonwealth shows itself chiefly in works that were necessary or convenient. On the contrary, the magnificence of Rome, under the emperors, was rather for ostentation than any real *useful-*

ness.

Addison.

I've hitherto been *used* to think

A blind officious zeal to serve my king

The ruling principle.

Id.

The waterman forlorn along the shore

Pensive reclines upon his *useless* oar.

Gay.

In this account they must constitute two at least, male and female, in every species; which chance could not have made so very nearly alike without copying, nor so *usefully* differing without contrivance.

Bentley.

You shew us Rome was glorious, not profuse;

And pompous buildings once were things of *use*.

Pope.

Things may, and must, differ in their *use*; but yet they are all to be *used* according to the will of God.

Law.

USEDOM, an island of Prussia, in Pomerania, formed by the Baltic and the Great and Little Haff. Its area is 150 square miles; its population between 11,000 and 12,000. It is intersected by several ranges of downs and sand hills, and has large woods, but not much land fit for agriculture.

USEFUL BOOKS. In a previous article we have promised to give to the reader our ideas on the subject of forming a generally useful, as distinct from a professional, library: and here, as it has been well said, it is more necessary perhaps to ponder well on what ought not to be recommended or described than on those books which ought to be admitted. Our hints therefore will not be such as might enable the classical scholar, the divine, the politician, the natural philosopher, the chemist, or the natural historian, to form his library; if a library is to embrace these and similar objects, it must necessarily be either of most unwieldy size and enormous price, or it must exclude many books proper and desirable for general readers. If any one of these descriptions of persons wishes to form a professional library, he ought to consult a professional and exclusive catalogue, and look only to us for suggestions which may enable him to add to his professional library the means and sources of general information.

i. Works on history and biography, voyages, and travels, are amongst the most obvious and real sources of interest and instruction. They ought, therefore, to form a numerous class in such a library as we would form; but he who is anxious to go deeply and critically into any particular point of history or geography, would not find materials here for his particular line of study; it could not be made full, or highly useful in this respect, without some inroad on its completeness and utility as a general library.

ii. This library would not admit very voluminous or very expensive books, because these are incompatible with the time, the purse, and the reading of those for whom it ought to be specially and peculiarly adapted: they, indeed, ought to be purchased and perused only by those who have some particular object of research in view, or from their circumstances are justified and enabled to form their library with a combined reference to its size, splendor, and utility.

iii. It ought to contain all those works the study of which must tend to increase the intellectual and moral excellence of the general reader. Those works, by which his duties as a citizen are pointed out, his relations with society defined, and the means of making himself useful and of increasing the happiness of mankind, clearly laid down. It ought at the same time to abound in those works, which, while they arrest the attention, enlarge the



reader's knowledge of the world, past and present, and of the condition of his fellow men wherever fate has placed them.

iv. As regards the classics, it ought to be confined to such works as are most generally read and understood by those who wish to retain, and perhaps extend, their knowledge of Greek and Latin, and to those editions which give the most correct text, and the most useful and condensed notes. French literature constitutes so general and necessary an accomplishment in modern education, that a judicious French scholar should be required to point out the best authors in that language, on the subjects of morals, history, biography, belles lettres, and the best voyages, travels, and poetry. With respect to books in the German, Italian, Spanish, &c., the selection in these branches must entirely depend upon the proficiency acquired in the language, and the taste of the proprietor.

v. It is very desirable, and perhaps indispensable, to have in a library one or two of the best Universal Histories. If it were possible to give such a combined and contemporaneous view of the events and state of the principal nations in different periods as would enable us to compare them with ease, clearness, and accuracy, Universal Histories would be the most instructive and interesting works. But it seems not possible to secure this advantage, except at the expense of great bulk and frequent repetitions, and attended with an intermingling and entanglement of the histories of the various nations, which bewilders and perplexes the reader. There is more of the good and less of the bad qualities of a universal history, when it confines itself to a general and philosophical view of such events as have been most influential in the progress of nations; and as these are, of course, not voluminous, they ought to find a preference in a general library. In selecting historical works on Greece and Rome, such of the original writers as are level to the knowledge of a common classical scholar ought to be admitted; but these only. Editions with a correct text, and such notes as explain real difficulties, or illustrate passages actually needing illustration, should exclusively be pointed out and recommended. Great care, judgment, and taste, are requisite in selecting books on the antiquities of Greece, Rome, &c.; there are very few, indeed, which are not either so voluminous that none but the professed antiquary ought to possess them; or which, even if in a moderate compass, do not weary and perplex, without satisfying the reader, by their minute attention to trifles.

Such are our *ideas* of the nature of a library of this kind. A list of books it is impossible to attempt in our limited space.

USHANT, an island on the north-west coast of France, about ten miles in circuit, having but one town or village, St. Michael. A naval engagement took place near this on the 27th of July 1778, between the English and French, in which both claimed the victory. The force was great (fully thirty sail of the line) on both sides, and the indecisive result of the action caused much discontent in England; but the fact was, that the French evaded a close action. The centre of the island is in Long. 5° 3' 6" W., lat. 48° 28' 8" N.

USHER, *n. s. & v. a.* Fr. *huissier* (*huis*, a door). One whose business is to introduce strangers, or walk before a person of rank; an under teacher: to introduce; bring in; forerun.

The wife of Antony  
Should have an army for an usher, and  
The neighs of horse to tell her approach,  
Long ere she did appear.

*Shakespeare.*

The sun,  
Declined, was hasting now with prone career  
To the ocean isles; and, in the ascending scale  
Of heaven, the stars, that usher evening, rose. *Milton.*

Though grammar's profits less than rhetoric's are,  
Yet even in those his usher claims a share. *Dryden.*

You make guards and ushers march before, and then  
enters your prince. *Taitler.*

USHER OF THE BLACK ROD, the eldest of the gentleman ushers or daily waiters at court, whose duty is to bear the rod before the king, at the feast of St. George and other solemnities. An officer of the house of lords also bears this title.

USHER (James), archbishop of Armagh, one of the most illustrious prelates in the seventeenth century. He was born in Dublin in 1580. Dublin college being finished, in 1593, he was one of the three first students admitted into it. He was ordained priest in 1601, and soon after was appointed to preach constantly before the court at Christ-church Dublin. In 1603 he was sent over to England with Dr. Luke Chaloner, to purchase books for the library of Dublin. In 1607 he took the degree of B. D., and soon after was made chancellor of St. Patrick's cathedral. Being chosen professor of divinity, he took Bellarmine's controversies for the subject of his lectures. In 1612 he took the degree of D. D. At the end of 1620 he was made bishop of Meath, and in 1625 archbishop of Armagh. In 1640 he came over to England with his family, with an intention to return to Ireland; but was prevented by the rebellion which broke out there in 1641; and in that rebellion he was plundered of every thing except his library, which was in England, and some furniture in his house at Drogheda. The king, therefore, conferred on him the bishopric of Carlisle, to be held in commendam; the revenues of which were greatly lessened by the Scots and Irish armies quartering upon it: but, when all the lands belonging to the bishoprics in England were seized by the parliament, they voted him a pension of £400 per annum, though he never received it but once or twice. He afterwards removed to Oxford; and in 1643 was nominated one of the assembly of divines at Westminster, but refused to sit amongst them; which, together with some of his sermons at Oxford giving offence to the parliament, they ordered his study of books of considerable value to be seized; but by the care of Dr. Featley, one of the assembly, they were secured for the primate's use. The king's affairs declining, and Oxford being threatened with a siege, he left that city, and retired to Cardiff in Wales, to the house of Sir Timothy Tyrrel, who had married his only daughter, and was then governor and general of the ordnance. He was afterwards invited to London by the countess of Peterborough. In 1647 he was chosen preacher in Lincoln's Inn; and, during the treaty in the Isle of Wight, he was sent for by the king, who consulted him about the government of the church. The death of the king struck him with great horror. He died of a pleurisy in 1655; and was solemnly buried in Westminster in St. Erasmus's chapel. He published, 1. *Britanicarum Ecclesiarum Antiquitates*. 2. *Polycarpi et Ignatii Epistolæ, Græce et Latine, &c.* 3. *Annals of the*

Old and New Testament, in Latin. 4. De Græco Septuaginta interpretum Versione Syntagma; and many other books which are esteemed. A considerable number of his works still remain in MS.

USK, a market-town in the hundred of the same name, near the centre of the county of Monmouthshire, and on the banks of the river Usk, seven miles from Caerleon, and 144 west by north of London. Its trade consists in a manufactory of Pontypool ware: the church, of Norman architecture, was originally built in the form of a cathedral. The river is remarkable for its salmon, and it has several very productive weirs in the neighbourhood. The town house is a modern building. Usk is supposed to be the Burrium of the Romans: it is a borough, governed by a mayor, community, and burgesses, and, in conjunction with Newport and Monmouth, sends one member to parliament. Market on Friday. Fairs, Trinity Monday, and October 18th.

USQUEBAUGH is a peculiar compounded liquor chiefly taken by way of dram. There are several different methods of making this liquor; but the following is esteemed one of the best:—To two gallons of brandy, or other spirits, put a pound of Spanish liquorice, half a pound of dried raisins, four ounces of currants, and three of sliced dates, the tops of baum, mint, savory, thyme, and the tops of the flowers of rosemary, of each two ounces; cinnamon and mace, well bruised, nutmegs, aniseeds, and coriander seeds, bruised likewise, of each four ounces; citron or lemon, and orange-peel, scraped, of each an ounce: let all these infuse forty-eight hours in a warm place, often shaking them together; then let them stand in a cool place for a week: after which, the clear liquor is to be decanted off, and to it is to be put an equal quantity of white port, and a gallon of canary; after which it is to be sweetened with a sufficient quantity of refined sugar.

USTIUG, VOLIKI, OF THE GREAT, a city of European Russia, in the government of Vologda, situated at the confluence of the Suchona and the Jug, which unite here and form the Dwina. It is an archbishop's see, and, though placed in a very inhospitable climate, contains nearly 12,000 inhabitants. It has two cathedrals, and a number of churches or chapels, but most of its houses are of wood. Its situation however renders it a mart of the trade between the frozen regions of the north and the more temperate provinces. Accordingly its merchants transact a good deal of business with Archangel, St. Petersburg, Cazan, and even Siberia. The principal articles of traffic are corn and furs; but the fish of the northern ocean, and the silks and tea of China, also form a part of it. There is in this sequestered place a manufactory of enamel and bronzed silver. 210 miles N. N. W. of Viatka, and 440 east of St. Petersburg.

USTORIOUS, *adj.* Latin *ustum*. Having the quality of burning.

The power of a burning glass is by an ustorious quality in the mirror or glass, arising from a certain unknown substantial form. *Watts.*

USUAL, *adj.* } Fr. *usuel*. Common; frequent; *adv.* } quent; customary: the adverb corresponding.

Consultation with oracles was a thing very usual and frequent in their times. *Hooker.*

The finding out the similitudes of different things, wherein the fancy is conversant, is usually a bar to the

discerning the disparities of similar appearances, which is the business of discretion. *Fell.*

If men's desires are usually as large as their abilities, what course we took to allure the former, by that we might engage the latter. *South's Sermons.*

USUFRUCT, *n. s.* Fr. *usufruit*; Lat. *usus* and *fructus*. The temporary use; enjoyment of the profits, without power to alienate.

The persons receiving the same have only the usufruct thereof, and not any fee or inheritance therein. *Ayliffe.*

USUFRUCT, in the civil law, is the use or enjoyment of any lands or tenements; or the right of receiving the fruits and profits of an inheritance or other thing.

USURE, *v. n.* } Lat. *usura*. To practise usury; *USURER, n. s.* } take interest for money: the *USURIOUS, adj.* } noun substantive and adjective corresponding; but the verb is obsolete.

If thou lend money to any that is poor, thou shalt not be to him as an usurer, nor lay upon him usury. *Exodus xxii. 25.*

Is this the balsam that the usuring senate Pours into captains' wounds? *Shakespeare. Timon.*

For every hour that thou wilt spare me now I will allow,

Usurious god of love, twenty to thee, When with my brown my grey hairs equal be. *Donne.*

There may be no commutative injustice, while each retains a mutual benefit; the usurer for his money, the borrower for his industry. *Child.*

USURP, *v. a.* } Fr. *usurper*; Lat. *usurpo*. *USURPAT'ION, n. s.* } To possess by force or intrusion; seize or possess *USURPER,* } *USURPINGLY, adv.* } without right: the derivatives corresponding.

So ugly a darkness, as if it would prevent the night's coming, usurped the day's right. *Sidney.*

Ever since he hath continued his first usurped power, and now exacteth upon all men what he list: so that now to subdue or expel an usurper, should be no unjust enterprize, but a restitution of ancient right unto the crown. *Spenser.*

It greatly becometh the church to have always most special care, lest human inventions usurp the room and title of divine worship. *Hooker.*

Lay aside the sword, Which sways usurpingly these several titles, And put the same into young Arthur's hand, Thy right royal sovereigna *Shakespeare.*

Their fox-like thefts are so rank as a man may find whole pages usurped from one another. *Ben Jonson.*

But this usurper his encroachment proud Stays not on man; to God his tower intends Siege and defiance. *Milton.*

Few usurpers to the shades descend By a dry death, or with a quiet end. *Dryden.*

Who 's this, that dares usurp The guards and habit of Numidia's prince? *Addison's Cato.*

USURY, *n. s.* Fr. *usuré*; Lat. *usura*. Money paid for the use of money; interest.

The wished day is come at last, That shall, for all the pains and sorrows past, Pay to her usury of long delight. *Spenser.*

Usury bringeth the treasure of a realm into few hands: for the usurer being at certainties, and others at uncertainties, at the end most of the money will be in the box. *Bacon.*

Our angles are like money put to usury, they may thrive, though we sit still and do nothing. *Walton's Angler.*

Usury is an unlawful contract upon the loan of money, to receive the same again with exorbitant



increase. By 37 Hen. VIII. c. 9, the rate of interest was fixed at £10 per cent. per annum; which the stat. 13 Eliz. c. 8 confirms, and ordains that all brokers shall be guilty of a præmunire that transact any contracts for more; and the securities themselves shall be void. The stat. 21 Jac. I. c. 7 reduced the interest to £8 per cent.; and it having been lowered in 1650, during the usurpation, to £6 per cent., the same reduction was reenacted after the restoration by stat. 12 Car. II. c. 13, and lastly, the stat. 12 Anne, st. 2. c. 16, has reduced it to £5 per cent. Wherefore not only all contracts for taking more are in themselves totally void, but also the lender shall forfeit the money borrowed. Also if any scrivener or broker takes more than 5s. per cent. procuration-money, or more than 12d. for making a bond, he shall forfeit £20 with costs, and shall suffer imprisonment for half a year. Many efforts have been made in modern times to obtain a revision by parliament of our usury laws, but hitherto without avail.

By 38 Geo. III. c. 93, reciting that by the laws in force all contracts and assurances whatsoever for payments of money, made for a usurious consideration, are utterly void; and also reciting that in the course of mercantile transactions negotiable securities often pass into the hands of persons who have discounted the same, without any knowledge of the original considerations for which the same were given; and that the avoidance of such securities in the hands of such bona fide indorsees without notice is attended with great hardship and injustice: it is enacted 'that no bill of exchange, or promissory note (drawn or made after the passing the act), shall, though it may have been given for a usurious consideration, or upon a usurious contract, be void in the hands of an indorsee for a valuable consideration, unless such indorsee had, at the time of discounting or paying such consideration for the same, actual notice that such bill or note had been originally given for a usurious consideration, or upon a usurious contract.' It may be doubted whether this act received all the consideration due to the subject; and whether an exception ought not to have been made as to the first and immediate indorsees of the parties to the usury, which latter seem the principal persons benefited by the act. For a statement of the general arguments in the late discussions on this subject, see Evans's Collection of Statutes, part. III., Class v. note on the statute 37 Hen. VIII. c. 9.

UTAWAS RIVER, a river of North America, which forms the boundary between Upper and Lower Canada, and makes part of that succession of lakes and rivers by which the fur traders of Canada penetrate into the interior. It has its source in the mountains, and, after a course of more than 400 miles, falls into the St. Lawrence in the vicinity of Montreal. It receives in its course the waters of the lake Timmiskamain. It is sometimes called Montreal River.

UTENHOVIUS (Charles), a native of Ghent, who was an eminent and learned critic in the dead languages. He published Poems in Greek and Latin, on various subjects; and died at Cologn in 1600.

UTENSIL, *n. s.* Fr. *utensile*; low Lat. *utensile*. An instrument for common use.

Burn but his books; he has brave *utensils*,  
Which, when he has a house, he'll deck withall.

Shakespeare.

Mules after these, camels and dromedaries,  
And waggons fraught with *utensils* of war. Milton.  
Tithes and lands given to God are never, and plate, vestments, and other sacred *utensils* are seldom consecrated. South.

UTERINE, *adj.* Fr. *uterin*; Lat. *uterinus*. Belonging to the womb.

The vessels of the interior glandulous substance of the womb are contorted with turnings and meanders, that they might accommodate themselves without danger of rupture to the necessary extension of the *uterine* substance. Ray.

UTERUS, in anatomy. See ANATOMY.

UTICA, in ancient geography, a town of Africa Propria, on the Mediterranean; a Tyrian colony and older than Carthage (Sil. Italicus); its name according to Bochart, denoting old; reckoned second to it; but, after the destruction of Carthage, it became the capital and centre of all the Roman transactions in Africa, according to Strabo; who adds, that it stood on the same bay with Carthage, at one of the promontories called Apollonium, bounding the bay on the west side, the other to the east called Hermeia, being at Carthage. It became famous by the suicide of Cato, thence called Uticensis.

UTILITY, *n. s.* Fr. *utilité*; Lat. *utilitas*. Usefulness; profit; convenience. Applied only to things.

Those things which have long gone together are confederate; whereas new things piece not so well; but though they help by their *utility*, yet they trouble by their incomformity. Bacon.

M. Zulichem desired me that I would give a relation of the cure of the gout, that might be made publick, as a thing which might prove of common *utility* to so great numbers as were subject to that disease. Temple.

UTMOST, *adj.* & *n. s.* Sax. *utmoert*, from *ut*-*ter*. Extreme; placed at the extremity; in the highest degree: as a noun substantive the most that can be.

I'll undertake to bring him,  
Where he shall answer by a lawful form,  
In peace, to his *utmost* peril. Shakespeare.

I will be free,  
Even to the *utmost* as I please in words. Id.

As far removed from God, and light of heaven,  
As from the centre thrice to the *utmost* pole. Milton.

Tie your fortune.  
—I have, to the *utmost*. Dryden.

A man, having carefully enquired into all the grounds of probability and unlikeliness, and done his *utmost* to inform himself in all particulars, may come to acknowledge on which side the probability rests. Locke.

UTRECHT, one of the provinces of the Netherlands, bounded on the west by Holland, on the north by the Zuyder Zee, and on the east by Gelderland. The soil in some parts is sandy, and fit for little but raising wood; in general, however, it affords good pasture. The extent of the province is about 490 square miles; its population is about 110,000. It is traversed by branches of the Rhine. Its exports are confined to cattle, cheese, and corn; the latter in small quantity. It sends eight deputies to the representative body, and is divided into nine cantons.

UTRECHT, a well known city of the Netherlands, capital of the preceding province, is situated on the Old Rhine, by which it is divided into two parts. It is healthy, and exempt from the disadvantages of damp, so common in Dutch towns. Nothing can surpass the beauty of the approaches;

particularly that from Amsterdam, which consists of a broad avenue, bordered with rows of trees. Of a form nearly square, Utrecht is surrounded with an earthen mound and moat; and, exclusive of the suburbs, is about three miles in circuit. Its population is about 35,000.

Of the public edifices, the most remarkable is the cathedral. A considerable part is now in ruins, but the tower, which still remains, is a very remarkable object. Its height is said to be 464 feet; and from its top may be seen, in a clear day, no less than fifty-one towns great and small. The town-house is a good structure; other objects worthy of notice are the charitable establishments, hospitals, &c. The Mall, situated outside the walls, is upwards of a mile in length, and bordered with a triple row of trees. The ramparts likewise form an agreeable walk. The university of Utrecht is of considerable note, and was founded in 1630; it has professors in the classics, mathematics, medicine, divinity, and law. Attached are a library, an anatomical theatre, a botanical garden, a cabinet of natural history, and an observatory. The town likewise possesses a hall of paintings, schools for the fine arts, and several valuable private libraries. This is the first town in the Dutch provinces where the traveller coming from the westward perceives an uneven surface, and begins to exchange the monotony of Holland, for the diversified scenery of Gelderland. It was the birth place of pope Adrian VI.; and is memorable as the place where, in 1579, was concluded the union of the seven provinces, and in 1713 the well known treaty of peace between the allies and French. Eighteen miles S. S. E. of Amsterdam.

UTRERA, a fortified town of Andalusia, Spain, situated on a steep eminence, of considerable height, at the foot of which flows a small river called the Carbonel. It is fourteen miles E. S. E. of Seville, and is considerably out of the right line from Cadiz to Seville; but as there is an immense tract of marshy land along the east bank of the Guadalquivir, called the Maresma, which is impassable for horses or carriages in rainy weather, the great road between these two cities passes through Utrera. Population 9000.

UTRICULARIA, in botany, water milfoil, a genus of plants of the class of diandria, and order of monogynia; and in the natural system arranged under the twenty-fourth order, corydalis. The calyx is ringent, with a nectarium resembling a spur; the corolla diphyllous and equal; the capsule unilocular. There are nine species; two of which are natives of Britain. They have been applied to no particular use.

UTTER, *adj.* & *v. a.*

UTTERANCE, *n. s.*

UTTERER,

UTTERLY, *adv.*

UTTERMOST, *adj.* & *n. s.*

declare; vend: utterance is extremity; terms of extreme hostility (obsolete); expression, particularly sad expression: an utterer is a vender; dis-closer; divulger: utterly, fully; completely: ut-termost, extreme; being in the highest degree: the highest degree.

Shall not they teach thee and tell thee, and utter words out of their heart? Job viii. 10.

There needeth neither promise nor persuasion to make her do her uttermost for her father's service. Sid.

He with utterance grave, and countenance sad,  
From point to point discoursed his voyage. Spenser.

Utterers of secrets he from thence debarred;  
Babblers of folly, and blazers of crime. Id.  
God, whose property is to shew his mercies, the greatest when they are nearest to be utterly despaired.

Hooker.  
He cannot have sufficient honour done unto him; but the uttermost we can do we must. Id.

When do partial and sinister affections more utter themselves than when an election is committed to many? Whitgift.

Come, fate, into the list,  
And champion me to the utterance. Shakspeare.

Such mortal drugs, I have, but Mantua's law  
Is death to any he that utters them. Id.

Were it folly to be modest in uttering what is known to all the world? Raleigh.

There is nowhere any nation so utterly lost to all things of law and morality, as not to believe the existence of God. Wilkins

He was so utterly tired with an employment so contrary to his humour, that he did not consider the means that would lead him out of it. Clarendon.

Pursue these sons of darkness; drive them out  
From all heaven's bounds into the utter deep. Milt.

I meant my words should not reach your ears; but what I uttered was most true. Dryden.

Many a man thinks admirably well who has a poor utterance; while others have a charming manner of speech, but their thoughts are trifling. Watts.

UTTOXETER, a market-town in Totmonslow hundred, Staffordshire, situate on the river Dove, six miles from Abbot's-Bromley, and 135 north-west of London. The inhabitants are employed in trade and manufactures, principally in the various branches of ironmongery, the town being nearly surrounded with forges. It is situate on a rising ground, and has several good streets, with a large open market-place in the centre. It carries on a considerable traffic, communicating, by its navigation, with the Trent, Thames, Avon, &c., which also communicate with London, and the Eastern and Western Oceans. The town is remarkable for the longevity of its inhabitants. The church is an ancient edifice, and here are several meeting-houses for dissenters, and a free-school. The market on Wednesday is noted for its great supply of cheese, butter, hogs, corn, and all kinds of provisions. Fairs, May 6th, July 31st, and September 1st and 19th. Patrons the dean and canons of Windsor.

UVARIA, in botany, a genus of plants in the class of polyandria, and order of polygynia; ranking according to the natural method in the fifty-second order, coadunatæ.

UVEOUS, *adj.* Lat. *uva*.

The uveous coat, or iris, of the eye, has a muscular power, and can dilate and contract that round hole in it, called the pupil. Ray on the Creation.

VUISTA, the name given by Buchanan to the isle of Unst.

VULCAN, in Pagan worship, the god of subterranean fire and metals, was the son of Jupiter and Juno; and was said to be so remarkably deformed, that his father threw him down from heaven to the isle of Lemnos, in which fall he broke his leg, and there he set up his forge, and taught men how to soften and polish brass and iron. Thence he removed to the Liparian isles, near Sicily, where, by the assistance of the Cyclops, he made Jupiter's thunderbolts, and armour for the other gods. Notwithstanding the deformity of his



person, he had a passion for Minerva, and by Jupiter's consent made his addresses to her, but without success. He was, however, more fortunate in his suit to Venus; who, after her marriage, chose Mars for her gallant; when Vulcan exposed them to the ridicule of the other gods, by taking them in a net of iron wire.

VULGAR, *adj.* & *n. s.* } *Fr. vulgaire*; Latin  
VULGARISM, *n. s.* } *vulgaris.* Plebeian;  
VULGARITY, } suiting to or practised  
VULGARLY, *adv.* } by the common people;  
plebeian; mean; low; the common people: vulgarism is grossness; meanness; a low speech or word: vulgarity, meanness; lowness: the adverb corresponding with the adjective.

Do you hear ought of a battle toward?  
—Most sure, and vulgar; every one hears that.

*Shakespeare.*

Those men, and their adherents, were then looked upon by the affrighted vulgar as greater protectors of their laws and liberties than myself.

*King Charles.*

He that believes himself incapable of pardon, goes on without thought of reforming; such an one we call vulgarly a desperate person.

*Hammond.*

The most considering and wisest men, in all ages and nations, have constantly differed from the vulgar in their thought.

*Wilkins.*

Is the *grandesophos* of Persius, and the sublimity of Juvenal, to be circumscribed with the meanness of words, and *vulgarity* of expression.

*Dryden.*

Men who have passed all their time in low and vulgar life, cannot have a suitable idea of the several beauties and blemishes in the actions of great men.

*Addison.*

The great events of Greek and Roman fable and history, which early education and the usual course of reading, have made familiar and interesting to all Europe, without being degraded by the *vulgarism* of ordinary life in any country.

*Reynolds.*

VULGATE, a very ancient Latin translation of the Bible, and the only one acknowledged by the church of Rome to be authentic. See BIBLE.

VULNERABLE, *adj.* *Fr. vulnerable*; Latin *vulnerabilis*. Susceptive of wounds; liable to external injuries.

Let fall thy blade on vulnerable crests;  
I bear a charmed life.

*Shakespeare.*

Achilles, though dipt in Styx, yet having his heel untouched by that water, although he were fortified elsewhere, he was slain in that part, as only vulnerable in the inferior and brutal part.

*Browne.*

VULNERARY, *adj.* *Fr. vulneraire*; Lat. *vulnerarius*. Useful in the cure of wounds.

Try whether the same effect will not ensue by common vulnerary plaisters.

*Browne.*

I kept the orifice open, and prescribed him vulneraries.

*Wiseman.*

VULNERATE, *v. a.* Lat. *vulnero*. To wound; to hurt.

There is an intercourse between the magnetick unguent and the vulnerated body.

*Glanville.*

VULPENITE. Color grayish-white. Massive. Splendent. Fracture foliated. Fragments rhomboidal. In distinct granular concretions. Translucent on the edges. Soft. Brittle. Specific gravity 2.878. It melts easily before the blow-pipe into a white opaque enamel. Its constituents are, sulphate of lime 92, silica 8. It occurs along with granular foliated limestone at Vulpino in Italy.

VULTUR, in ornithology, a genus of birds belonging to the order accipitres. The beak is straight and crooked at the point; the head has no feathers; on the fore part being only naked skin; and the tongue is generally bifid. There are twenty-

one species. The most remarkable are these:—1. *V. aura*, the carrion vulture, according to Mr. Latham, is about the size of a turkey, though it varies in size in different parts. The bill is white, the end black; irides bluish saffron-color. The head, and part of the neck, are bare of feathers; and of a red, or rather rufous color. The sides of the head warted, not unlike that of a turkey. The whole plumage is brown black, with a purple and green gloss in different reflections; but in some birds, especially young ones, greatly verging to dirty brown. The feathers of the quills and tail are blacker than the rest of the body. The legs are flesh-color; the claws black. These birds are very common in the West Indies, and both in north and south America. It feeds on dead carcases, snakes &c., like most of this genus; which makes the smell of it very offensive. In general it is very tame in its wild state, but particularly so when trained up from being young. In the West Indies they roost together at night, in vast numbers, like rooks in this country. They are reckoned a most useful animal in the places where they resort; which secures their safety, added to a penalty for killing one, which is in force in Jamaica and other islands of the West Indies.

2. *V. gryphus*, the condor, which is not only the largest of this genus, but perhaps of all others which are able to fly. The accounts of authors in regard to its extent of wing are various, viz. from nine to eighteen feet from the tip of one wing to that of the other. One gives it strength sufficient to carry off sheep, and boys of ten years old; while another ventures to affirm, that it can lift an elephant from the ground high enough to kill it by the fall! M. de Salerne says that one of this kind was shot in France in 1719, whose extent of wing was eighteen feet. The following is the description of one in a museum in this country:—It has an extent of wing somewhat under eleven feet, the bill is strong, moderately hooked, and blunt at the tip, which is white, the rest of it a dusky color. On the top of the head runs a kind of carunculated substance, standing up like the comb of a cock. The head and neck are slightly covered with brown down, in some parts nearly bare, and here and there a carunculated part, as in the neck of a turkey. The lower part of the neck is surrounded with a ruff of a pure white and hairy kind of feathers. The upper parts of the body, wing, and garl, are black, except that the middle wing coverts have whitish ends, and the greater coverts half black, half white. The nine or ten first quills are black, the rest white, with the tips only black; and, when the wings are closed, producing the appearance of the bird having the back white. The under parts of the body are rather slightly covered with feathers; but those of the thighs are pretty long. The legs are stout and brown: claws black and blunt. These birds are said to make their nest among the inaccessible rocks, and to lay two white eggs, larger than those of a turkey; they are very destructive to sheep, and will in troops often attempt calves; in which case, some of them first pick out the eyes, whilst others attack the poor animal on all sides, and soon tear him to pieces. This gives rise to the following stratagem, used by the peasants of Chili:—One of them wraps himself up in the hide of a fresh killed sheep or ox, and lies still on the ground; the condor, supposing it to be lawful prey, flies down to secure it, when the person concealed lays hold of



the legs of the bird, his hands being well covered with gloves; and immediately his comrades, who are concealed at a distance, run in, and assist to secure the depredator, by falling on him with sticks till they have killed him.

3. *V. harpyia*. See *FALCO*.

4. *V. oricou*, a species discovered by M. Vailant at Orange River, South Africa. It is above three feet high, and eight or nine in breadth between the tips of the wings. Its feathers, the general hue of which is a light brown, are on the breast, belly, and sides, of unequal lengths, curved like the blade of a sabre, and bristle up distinct from each other. The feathers, thus separated, would disclose to view the naked skin on the breast, if it were not completely covered with a very thick and beautiful white down, which is easily seen between the ruffled plumage. A celebrated naturalist says, 'that no bird has eye-lashes or eye-brows, or hair round the eyes, like that in quadrupeds'; but this is a mistake. Not only the oricou has this peculiarity, but many other species; such as all the culaos, the secretary (see *FALCO*) and several other birds of prey. Besides these eye-lashes, the oricou has stiff black hairs on its throat. All the head and part of the neck are bare; and the naked skin, which is reddish, is variegated with blue, violet, and white. The ear in its external circumference is bounded by a prominent skin, which forms a sort of rounded couch, prolonged for some inches down the neck, that must heighten the faculty of hearing.' 'Its strength,' says Vaillant, 'must be great, if we judge from its muscles and sinews,' and he thinks it is the strongest of birds, not excepting the famous condor.

5. *V. perenopterus*, the Egyptian vulture. The appearance of this bird is as horrid as can well be imagined, viz. the face is naked and wrinkled; the eyes are large and black: the beak black and hooked; the talons large, and extending ready for prey; and the whole body polluted with filth; these are qualities enough to make the beholder shudder with horror. Notwithstanding this, the inhabitants of Egypt cannot be enough thankful to Providence for this bird. All the places round Cairo are filled with the dead bodies of asses and camels; and thousands of these birds fly about and devour the carcases before they putrefy and fill the air with noxious exhalations. The inhabitants of Egypt, and after them Maillet in his description of Egypt, say, that they yearly follow the caravan to Mecca, and devour the filth of the slaughtered beasts, and the carcases of the camels which die on the journey. They do not fly high, nor are they afraid of men. If one of them is killed, all the rest surround him in the same manner as do the royston crows; they do not quit the places they frequent though frightened by the explosion of a gun, but immediately return. Maillet imagines this bird to be the ibis of the ancients; but it is scarcely to be imagined that a wise nation should pay such honors to an unclean, impure, and rapacious bird which was not perhaps so common before the Egyptians filled the streets with carcases. If the ibis is to be found, it must certainly be looked for in the order of grallæ of Linné; and we imagine it to be the white stork (*ardea ciconia*), which is so common in Egypt. The Arabians call it *rochème*; the French, when in Egypt, gave it the name of *chapon de Pharaon*, or *de Mahometh*. See *SOUDAN*.

6. *V. sagittarius*, or secretary, is a most singular species, being particularly remarkable from the

great length of its legs; which at first sight would induce one to think it belonged to waders: but the characters of the vulture are so strongly marked throughout, as to leave no doubt to which class it belongs. The bird, when standing erect, is full three feet from the top of the head to the ground. The bill is black, sharp, and crooked, like that of an eagle; the head, neck, breast, and upper parts of the body, are of a bluish ash color: the legs are very long, stouter than those of a heron, and of a brown color; claws shortish, but crooked, not very sharp, and of a black color; from the hind-head springs a number of long feathers, which hang loose behind, like a pendent crest; these feathers arise by pairs, and are longer as they are lower down on the neck; this crest the bird can erect or depress at pleasure; it is of a dark color, almost black; the webs are equal on both sides, and rather curled; and the feathers, when erected, somewhat incline towards the neck; the two middle feathers of the tail twice as long as any of the rest. This singular species inhabits the internal parts of Africa, and is frequently seen at the Cape of Good Hope. It is also met with in the Philippine islands. As to the manners of this bird, it is on all hands allowed that it principally feeds on rats, lizards, snakes, and the like; and that it will become familiar: whence Sonnerat is of opinion, that it might be made useful in some of our colonies, if encouraged, towards the destruction of those pests. They call it at the Cape of Good Hope *flangeater*, i. e. snake eater. A great peculiarity belongs to it perhaps observed in no other; which is, the faculty of striking forwards with its legs, never backwards. Dr. Solander has seen one of these birds take up a snake, small tortoise, or such like, in its claws; when dashing it thence against the ground with great violence, if the victim was not killed at first, it repeated the operation till that end was answered; after which it ate it up quietly. Dr. J. R. Forster mentioned a further circumstance, which he says was supposed to be peculiar to this bird; that should it by any accident break the leg, the bone would never unite again.

7. *V. Serpentarius*. See *FALCO*.

*VULTURE*, *n. s.* Lat. *vultur*. A large bird of prey, remarkable for voracity.

Nor the night raven that still deadly yells,  
Nor griesly vultures, make us once affeared. *Spenser*.

We've willing dames enough; there cannot be  
That *vulture* in you to devour so many  
As will to greatness dedicate themselves. *Shakespeare*.

A ravenous *vulture* in his opened side  
Her crooked beak and cruel talons tried. *Dryden*.

*UVULA*, *n. s.* Lat. *uvula*. In anatomy, a round soft spongy body, suspended from the palate, over the glottis.

By an instrument bended up at one end, I got up behind the *uvula*. *Wiseman's Surgery*.

*UVULAR GLANDS*. See *ANATOMY*.

*UVULARIA*, in botany, Pennsylvanian Solomon's seal, a genus of plants, in the class of hexandria, and order of monogynia; and, according to the natural method, ranking in the eleventh order, samentose. It is a native of Pennsylvania. The characters of this genus are, that they have but one style and six petals, and are naked, i. e. without any calyx.

*UXBRIDGE*, a market-town and chapelry in Hillingdon parish, Elthorne hundred, Middlesex, fifteen miles west of London, consists of one street,



nearly a mile in length; the river Coln runs in two streams at the west end, having a new stone bridge over the main branch; that part of the town, in the liberties of the township of Hillingdon, still remains unpaved, but the rest is paved and lighted by virtue of a late act. The church, or chapel of ease, is a good building, and was erected in the reign of Henry VI.; near it is a very commodious market-house. The church-yard lies at some distance from the church. In a parallel line with the river, running from south to north, passes the Grand Junction Canal, from the Thames at New Brentford, on its way, to join the Braunston and other canals, in the midland and northern counties. Near the canal is an ancient building called the Treaty House, from its being the place where the commissioners of Charles I. and the parliament met in 1644. The town is governed by a high constable, two constables, and four headboroughs. During the summer season, a passage boat arrives daily, by the canal from Paddington, about two o'clock, and returns the same evening. Uxbridge is principally noted for its very great corn market, and for its opulent mealmen, and gives the title of earl to the family of Paget. Fairs, March 25th, July 31st, September 29th, and October 11th. Market Thursday.

**UXORIOUS**, *adj.* Latin *uxorius*. **UXORIOUSLY**, *adv.* Sively fond of a wife; infected with connubial dotage: the adverb corresponding.

That *uxorious* king, whose heart, though large,

## W.

W is a letter of which the form is not to be found in the learned languages; though it is not improbable that by our *w* is expressed the sound of the Roman *v*, and the Eolick *f*. Both the form and sound are excluded from the languages derived from the Latin. It is sometimes improperly used in diphthongs as a vowel for *u*; view, strew: the sound of *w* consonant, if it be a consonant, is uniform.

W, or w, is the twenty-first letter of our alphabet; and is composed, as its name implies, of two v's. It was not in use among the Hebrews, Greeks, or Romans; but chiefly peculiar to the northern nations, the Teutones, the Saxons, Britons, &c. But still it is not used by the French, Italians, Spaniards, or Portuguese, except in proper names, and other terms borrowed from languages in which it is originally used, and even then it is sounded like the single v. This letter is of an ambiguous nature; being a consonant at the beginning of words, and a vowel at the end. It may stand before all the vowels except *u* as water, wedge, winter, wonder: it may also follow the vowels *a*, *e*, *o*, and unites with them into a kind of double vowel, or diphthong; as in saw, few, cow, &c. It also goes before *r*, and follows *s* and *th*; as in wrath, swear, thwart; it goes before *h* also, though in reality it is sounded after it; as in when, what, &c. In some words it is obscure, as in shadow, widow, &c.

**WABBLE**, or **WADDLE**, *v. n.* Teut. *wablen*; Belg. *wagelen*, *v. n.* *ghelen*, to wobble; whence, by corruption, wabble and waddle. To shake in walking from side to side; to deviate in motion from a right line.

Beguiled by fair idolatresses, fell  
To idols foul. *Milton's Paradise Lost.*  
If thou art thus *uxoriously* inclined  
To bear thy bondage with a willing mind,  
Prepare thy neck. *Dryden's Juvenal.*

**UZ**, or **URZ**, the country and place of residence of Job. In the genealogy of the patriarchs there are three persons called Uz, either of which might give this district its name. The first was the grandson of Sem, by his son Aram (Gen. xxii. 23), who, according to Josephus, occupied the Trachonitis, and Damascus, to the north of Palestine: but Job was among the sons of the east. Another Uz was the son of Nahor, Abraham's brother (Gen. x. 21), who appears to have removed, after passing the Euphrates, from Haran of Mesopotamia, to Arabia Deserta. The third Uz was a Horite, from mount Seir (Gen. xxxvi. 28), and thus not of Eber's posterity. Now the question is, from which of these Job's country, Uz, took its name? Not from the first, as is already shown; nor from the second, because his country is always called Seir, or Edom, never Uz; and then called a south, not an east, country in Scripture. It therefore remains that we look for the country and place of residence of Job in Arabia Deserta; for which there were very probable reasons. The plunderers of Job are called Chaldeans and Sabeans, next neighbours to him. These Sabeans came not from Arabia Felix, but from a nearer Sabe in Arabia Deserta (Ptolemy); and his friends, except Eliphaz the Temanite, were of Arabia Deserta. See Job.

She could have run and *waddled* all about. *Shaksp.*  
The strutting petticoat smooths and levels all distinctions; while I cannot but be troubled to see so many well-shaped innocent virgins bloated up, and waddling up and down, like big-bellied women. *Spectator.*  
Obliquely *waddling* to the mark in view. *Pope.*  
She draws her words, and *waddles* in her pace;  
Unwasht her hands, and much besnuffs her face.

*Young.*

If in your work you find it *wobble*; that is that one side of the flat inclines to the right or left hand, with soft blows of an hammer set it to rights. *Moxon.*

**WACHENDORFIA**, in botany, a genus of plants, in the class of triandria, and order of monogynia; ranking according to the natural method in the sixth order, ensatæ. The plants of this genus have one style and three stamina; with spathaceous flowers, and a trilobular and superior capsule. The corolla is hexapetalous, unequal, and situated below the germen. There are four species, all foreign plants.

**WADD**, or **WADDING**, is a stopple of paper, hay, straw, or the like, forced into a gun upon the powder to keep it close in the chamber; or to put up close to the shot, to keep it from rolling out.

**WADD**, **BLACK**. See **MANGANESE**.

**WADDAHS**, a savage people in Ceylon They live by themselves, and neither till the ground nor breed cattle; but subsist entirely by hunting with bows and arrows; except that they collect wild honey. They have no houses, and are quite naked, except a piece of cloth which they wrap round their waist. They sleep under large trees, on the banks of rivers. A few of them have a sort of tem-

pies, where they worship some imaginary deity. They preserve the flesh of their game by putting it into hollow trees, streaked with honey, and closing the holes with clay.

WADE, *v. n.* Sax. *paðan*; Belg. *waden*; Lat. *vadum*, pronounced *vadum*. To walk through the waters; to pass water without swimming; pass difficultly.

Virtue gives herself light, through darkness for to wade. *Spenser.*

He staid seven days at the Crassus, until a bridge was made for the transporting of his army, for that the river was not to be waded over. *Knolles.*

I have waded through the whole cause, searching the truth by the causes of truth. *Hooker.*

We'll wade to the market-place in Frenchmen's blood. *Shakespeare.*

'Tis not to my purpose to wade into those bottomless controversies, which, like a gulph, have swallowed up so much time of learned men. *Decay of Piety.*

With head, hands, wings, or feet pursues his way, And swims, or sinks, or wades, or creeps, or flies. *Mil.*

It is hard to wade deep in baths where springs arise. *Broune.*

Simonides, the more he contemplated the nature of the Deity, found that he waded but the more out of his depth, and that he lost himself in the thought. *Addis.*

WADING (Peter), a learned Irish Jesuit, born at Waterford in 1586. He joined the Society at Tournay, in 1601. He was made chancellor of the universities of Prague and Gratz. He wrote *Tractatus Adversus Hæreticos*, and *Carmina Varia*. He lived long in Bohemia, and died at Gratz, in 1644.

WADSWORTH (Thomas), a nonconformist divine, born in Southwark, in the seventeenth century, and educated at Christ's college Cambridge. He became minister of Newington Butts, and of Laurence Pountney church London; and from his Diary, printed at the end of his Life, appears to have been a good man, and an exemplary pastor: yet he was deprived of his living in 1662. He published several Sermons, and a work *On the Immortality of the Soul*.

WAFER, *n. s.* Belg. *wafel*. A thin cake.

Wife, make us a dinner; spare flesh, neither corn; Make wafers and cakes, for our sheepe must be shorne. *Tusser.*

That the same body of Christ should be in a thousand places at once; that the whole body should lie hid in a little thin wafer, yet so that the members thereof should not one run into another, but continue distinct, and have an order agreeable to a man's body, it doth exceed reason. *Hall.*

WAFER, in the eucharist. See TRANSUBSTANTIATION.

WAFERS, or SEALING WAFERS, are made thus:

—Take very fine flour, mix it with glair of eggs; isinglass, and a little yeast; mingle the materials, beat them well together; spread the batter, being made thin with gum-water, on even tin plates, and dry them on a stove; then cut them out for use. They may be made of any color, by tinging the paste with brazil or vermilion for red; indigo or verditer, &c., for blue; saffron, turmeric, or gamboge, &c., for yellow.

WAFTE, *v. a., v. n., &* *Pret.* wafted, or per-

WAFTEGE, *n. s.* [*n. s.*] haps waft; *part. pass.*

WAFTEURE. wafted or waft. Prob-

ably from wave. To carry or float through the air or on water; to buoy: to float: also a floating body: waftage is carriage by water or in the air: wafture the act of waving.

A braver choice of dauntless spirits,  
Than now the English bottoms have waft o'er,  
Did never float upon the swelling tide. *Shakspeare.*  
What ship of Epidamnum stays for me?

—A ship you sent me to, to hire waftage. *Id.*

You answered not;

But with an angry wafture of your hand  
Gave sign for me to leave you. *Id.*

Thence wafted with a merry gale,  
Sees Leinster, and the golden vale. *Dryden.*

It wafted nearer yet, and then she knew,  
That what before she but surmised, was true. *Dryden.*

In vain you tell your parting lover,  
You wish fair winds may waft him over:

Alas! what winds can happy prove,  
That bear me far from what I love? *Prior.*

From the bellowing east oft the whirlwind's wing  
Sweeps up the burthen of whole wintry plains.

In one wide waft. *Thomson.*

WAG, *v. a., v. n., &* Sax. *pagian*; Teutonic

WAGGLE, *v. n.* [*n. s.*] *wagen*; Belg. *waggen*. To

WAGGER, *n. s.* move lightly, or shake

WAGGISH, *adj.* slightly: be in quick vac-

WAGGISHLY, *adv.* illating motion; be moved

WAGGISHNESS, *n. s.* in this way: a wag is a

droll or merry fellow: to waggle is to waddle; move from side to side: waggery and waggishness, trick; drollery; mischievous merriment: the adjective and adverb correspond.

All that pass hiss and wag their heads at thee.

*Lamentations, ii. 15.*

The sport Basilius would shew to Zelmane, was the mounting of his hawk at a heron, which, getting up on his waggling wings with pain, was now grown to diminish the sight of himself. *Sidney.*

Cupid the wag, that lately conquered had  
Wise counsellors, stout captains puissant;  
And tied them fast to lead his triumphs bad,  
Glutted with them, now plays with meanest things. *Id.*

I will provoke him to 't, or let him wag. *Shaksp.*

Was not my lord the verier wag o' th' two? *Id.*

A Christian boy in Constantinople had like to have been stoned for gagging, in a waggishness, a long billed fowl. *Bacon.*

This new conceit is the waggish suggestion of some sly and skulking atheists. *More's Divine Dial.*

Thou can'st not wag thy finger, or begin  
The least light motion, but it tends to sin. *Dryden.*

We wink at wags when they offend

And spare the boy, in hopes the man may mend. *Id.*

Why do you go nodding and waggling so, as if hip-shot? says the goose to her gosseling. *L'Estrange.*

'Tis not the waggeries or cheats practised among school-boys, that make an able man; but the principles of justice, generosity, and sobriety. *Locke.*

A counsellor never pleaded without a piece of pack-thread in his hand, which he used to twist about a finger, all the while he was speaking: the wags used to call it the thread of his discourse. *Addison.*

WAGE, *n. s. & v. a.* } The plural wages is

WAGGER, *n. s.* } now only used. *Goth.*

and Sax. *wed*; Swed. *wada*; Germ. *wegen* or *wagen*; Fr. *gages*. Pledge; stake; engagement; pay

given for service: hence to engage; attempt; venture; set or take to hire: a wager is a stake; bett; any thing pledged on a chance; the subject of bets; legal pledge.

The sea strove with the winds which should be louder; and the shrouds of the ship, with a ghastful noise, to them that were in it witnessed that their ruin was the wagger of the other's contention. *Sidney.*

Full fast she fled, ne ever looked behind;  
As if her life upon the wagger lay. *Spenser.*

Thou must wage

Thy works for wealth, and life for gold engage. *Id.*



We must not think the Turk is so unskilful,  
Neglecting an attempt of ease and gain,  
To wake and wage a danger profitless. *Shakespeare.*

All friends shall taste  
The wages of their virtue, and all foes  
The cup of their deservings. *Id.*

'Twas merry when you *waged* on your angling. *Id.*  
The officers of the admiralty having places of so good  
benefit, it is their parts, being well *waged* and rewarded,  
exactly to look into the sound building of ships. *Raleigh.*

The sonnes of Greece *waged* war at Troy. *Chapman.*  
He with a mighty *wage*,  
Won such, themselves by oath as deeply durst engage. *Drayton.*

This great lord came not over with any great num-  
ber of *waged* soldiers. *Davies's Ireland.*

Multiplication of actions upon the case were rare  
formerly, and there by *wager* of law ousted; which  
discouraged many suits. *Hale.*

Factionous, and fav'ring this or t' other side,  
Their *wagers* back their wishes. *Dryden.*

He pondered which of all his sons was fit  
To reign, and *wage* immortal war with wit. *Id.*

The thing itself is not only our duty, but our glory:  
and he who hath done this work has in the very work  
partly received his *wages*. *South.*

If any atheist can stake his soul for a *wager* against  
such an inexhaustible disproportion, let him never  
hereafter accuse others of credulity. *Bentley.*

WAGENSEIL (John Christopher), LL. D., a  
learned German, born at Nuremberg, in 1633. He  
graduated at Orleans, after which he became pro-  
fessor of law and history at Altorf, and next of  
Oriental languages. He wrote, 1. *De urbe Norim-  
bergæ*; 4to. 2. *Pera Librorum Juvenilium*, 12mo.  
3. *Tela ignea Satanae*; 2. tom. 4to. He died in  
1705.

WAGER OF BATTLE. See BATTLE. By stat. 59  
Geo. III. c. 46, this mode of trial is abolished in  
writs of right: the same act abolishes all appeals  
of murder, treason, felony, or other offences; and,  
consequently, the trial by battle in those cases:  
which is therefore thus completely put an end to,  
after much ingenious research and controversy on  
the subject.

WAGER OF LAW (*Vadiatio Legis*), so called,  
because the defendant puts in sureties, vadios, that at  
such a day he will make his *law*, that is, take the  
benefit which the law has allowed him.—3 Comm.  
c. 22; 1 Inst. 295. This takes place where an ac-  
tion of debt is brought against a man upon a simple  
contract between the parties, without deed or record:  
and the defendant swears in court, in the presence  
of eleven compurgators, that he oweth the plaintiff  
nothing, in manner and form as he hath declared;  
the reason of this *waging* of law is, because the  
defendant might have paid the plaintiff his debt  
in private, or before witnesses who may be all dead,  
and therefore the law allows him to wage his law  
in his discharge; and his oath shall rather be ac-  
cepted to discharge himself, than the law will suffer  
him to be charged upon the bare allegation of the  
plaintiff.—2 Inst. 45. *Wager* of law is used in  
actions of debt without specialty; and also in ac-  
tion of detinue, for goods or chattels lent or left  
with the defendant, who may swear on a book that  
he detaineth not the goods in manner as the plain-  
tiff has declared; and his compurgators (who must,  
in all cases, as it seems now, be eleven in number),  
swear that they believe his oath to be true.—3  
Comm. c. 22.

WAGERS. A *wager* is frequently the disguise of an  
illegal transaction: and all *wagers* are void, if they

are of such a nature that they might have an illegal  
tendency, although they are not accompanied by an  
illegal intention in the particular instance: as a  
*wager* between two voters respecting the event of  
an election. In general, a *wager* may be con-  
sidered as legal, if it be not an incitement to a  
breach of the peace, or to immorality; or if it do  
not affect the feelings or interest of a third person,  
or expose him to ridicule; or if it be not against  
sound policy. But as *wagers*, though admitted to be  
legal in general under the restrictions before alluded  
to, are yet much discountenanced by the courts of  
justice, the cases decided respecting them will not  
always furnish a ground of analogy for the expo-  
sition of other subjects.

WAG'GON, *n. s.* † Sax. *wægen*; Belgic and  
WAG'GONER. † Teut. *wagen*; Islandic *wagn*.  
A heavy carriage for burdens; a chariot: one who  
drives a *waggon*.

Now fair Phæbus 'gan decline in haste  
His weary *waggon* to the western vale. *Spenser.*

By this, the northern *waggoner* had set  
His sevenfold team behind the stedfast star,  
That was in ocean waves yet never wet. *Id.*

The Hungarian tents were enclosed round with *wag-  
gons*, one chained to another. *Knolles.*

Her *waggon* spokes made of long spinners' legs;  
The cover of the wings of grasshoppers. *Shakespeare.*

*Waggons* fraught with utensils of war. *Milton.*

The *waggoners* that curse their standing teams  
Would wake e'en drowsy Drusus from his dreams. *Dryden.*

A *waggoner* took notice, upon the creaking of a  
wheel, that it was the worst wheel that made most noise.  
*L'Estrange.*

A WAGGON is a wheel carriage, of which there  
are various forms, accommodated to the different  
uses they are intended for. The common *waggon*  
consists of the shafts or rods, being the two pieces  
which the hind horse bears up; the welds; the  
slots or cross pieces, which hold the shafts to-  
gether; the bolster, being that part on which the fore-  
wheels and the axle-tree turn in wheeling the *wag-  
gon* across the road; the chest or body of the *wag-  
gon*, having the staves or rails fixed thereon; the  
bales, or hoops which compose the top; the tilt,  
the place covered with cloth, at the end of the  
*waggon*.

WAGNER (John James), a physician of Swit-  
zerland, born in 1641. He wrote *Historia Natu-  
ralis Helvetiæ curiosæ*; 12mo. He became libra-  
rian of Zurich, and died in 1695, aged only fifty-  
four.

WAGSTAFFE (Thomas), M. A., a learned di-  
vine born in Warwickshire in 1645, and educated  
at the Charter-house in London, whence he re-  
moved to New Inn Hall, Oxford, where he gra-  
duated. He became chancellor of Lichfield cathe-  
dral, and rector of St. Margaret, London; but was  
ejected at the revolution for refusing the oaths. In  
1693 he was made a nonjuring bishop. He  
practised physic, and published some Sermons, and  
an able defence of Charles I. as the author of  
*Εικον βασιλικη*. He died in 1702.

WAHABEES, WAHABIES, or WEHHABIS, a for-  
midable body of warlike sectaries, who sprung up  
in Arabia, about a century ago, commencing their  
career as reformers of the Mahometan religion.  
According to Niebuhr, the founder of this sect was  
Abd ul Wehhab (Abdoulwehhbah, or Ubdool Wa-  
hab), a native of Aijæne (Ujuna), a town in El A-



red (Ool Urud), one of the two districts of Nedsjed in Arabia. Those schiecks, who had before been in a state of hostility against one another, were reconciled by the mediation of Abd ul Wehhab, and agreed for the future to undertake no enterprise without the advice of their apostle. In process of time, Abd ul Wehhab reduced great part of El Ared; and being afterwards joined by schieck Mecrami, of Nedsjeran, who was also the head of a particular sect, he, or rather his son Mahomet, as he succeeded his father, was enabled to reduce the Sunnite schiecks, and to subdue many of their neighbours. After the death of Abd ul Wehhab, his son retained the same authority, and prosecuted his father's views; and though the hereditary schiecks, who were more independent, still retain a nominal authority, yet he became in fact the sovereign of the whole, and exacts a tribute, under the name of 'sikka,' or aid, for the purpose of carrying on the war against the infidels. The Sunnites complain of his persecution; but, more probably, as Niebuhr says, this bigoted and superstitious sect hate and calumniate Mahomet for his innovations in religion. However this be, the inhabitants of Nedsjed, who demur against embracing the new religion, are retiring to other parts of the country. Zabaner, the ancient Basra, which had decayed to a condition little better than a hamlet, has been peopled by these refugees, and is now a large town.

This new religion of Abd ul Wehhab, according to the account given of it by the schiecks, which, however, in some respects, differs from the statement of the Sunnites, may be regarded as a reformation of Mahometanism. Experience must decide whether a religion, so stripped of every thing that might serve to strike the senses, can long maintain its ground among a people so rude and ignorant as the Arabs. Abd ul Wehhab also thought it necessary to impose some religious observances on his followers; and interdicted the use of tobacco, opium, and coffee; he enacted likewise a variety of civil regulations, with regard to the collection and distribution of revenues.

In 1801 the Wahabees had penetrated to, and destroyed by fire, the town of Imam Hossein, near Bagdad. The men and male children were all put to the sword; while a Wehhabite doctor, from the top of a tower, excited the massacre, by calling on the soldiers to kill 'all the infidels who gave companions to God.' In 1802 Mecca was taken, after a trifling opposition by Saaoud, the son of Abdelaaziz, who razed to the ground all the mosques and chapels consecrated to the prophet or his family. This young warrior succeeded to the command of the Wahabees the following year, on the assassination of his father; and, in 1804, made himself master of Medina, which had before resisted his arms. The conquest of Arabia was now nearly completed: and the sultan Saaoud became a formidable neighbour to the surrounding pachas of Bagdad, Damascus, and Egypt.

The constitution of this new sovereignty is singular in its kind. The town of Draaiya, among the deserts, 390 miles to the east of Medina, long formed a sort of capital, or centre, of the governments of the Wahabees. The various tribes of Arabs, scattered widely in tents and barracks over this vast extent of country, yielded obedience, both civil and military, to the sultan Saaoud. The tenth of their flocks and fruits was paid in tribute; an order from the sultan rapidly assembled a multitude

of armed men, subsisting themselves at their own expense, totally unorganized as soldiers, but deriving force from their numbers—from their active spirit as sectaries—and from the large plunder they obtained in their military expeditions. Descending frequently from their desert recesses upon the coast of the Red Sea, they arrested the caravans, and levied contributions upon the pilgrims journeying to Mecca and Medina. In 1807, when Ali Bey visited Mecca, the Wahabees were in their greatest power. Their army, which he saw encamped in the vicinity of the sacred mount of Arafat, he estimates at 45,000 men,—a large proportion of the number mounted on camels and dromedaries, and with a train of a thousand camels attached to the different chiefs of the army. He describes with some spirit the appearance of another body of Wahabees, whom he saw entering Mecca, to take possession of the city, and fulfil the duties of their own pilgrimage:—a multitude of copper-colored men who rushed impetuously into the place, their only covering a narrow girdle round their waist, to which was hung a khanjeer, or large knife, each one carrying besides a firelock on his shoulder. Their devotions were of the most tumultuous kind; the lamps surrounding the sacred kaaba were broken by their guns; and the ropes and buckets of the well of Zemzem destroyed in their eagerness to reach the holy water. All the other pilgrims quitted their more decorous ceremonies, till the Wahabees having satisfied their zeal, and paid their alms to the well in gunpowder and coffee, betook themselves to the streets, where in conformity with the law of Abd ul Wehhab, their heads were all closely shaven by the barbers of Mecca. The sultan Saaoud, whom Ali Bey saw at Arafat, was almost as naked as his subjects, distinguished chiefly by the green standard carried before him, with the characters, 'La illahà illa Allah,'—'there is no other God but God,' embroidered upon it.

The campaign of the pacha of Egypt against the Wahabees had in 1812 been unsuccessful; and his army suffered very greatly in an engagement at Jedda, the port of Mecca on the adjoining coast. He redoubled, however, his exertions; organized new troops; and, early in the spring of 1813, brought the war to a triumphant termination. The Wahabees were driven with loss from the coast; Mecca, Medina, and Jedda, were all retaken, and restored again to the authority of the Porte, and to the worship of the true believers. Mohammed Ali sent his youngest son, Ismael-Pacha, to Constantinople, to lay the keys of Mecca at the feet of the grand seignior. The acquisition was rendered of the utmost importance, by the peculiar feeling of all Mussulmans towards the actual possessor of the holy city. The progress of this sect, says Mr. Kinneir, appears to be now at a stand; few proselytes have been made for a number of years past; and the most paltry fortifications have been found sufficient to arrest their career.

V'AID. For weighed. Crushed.

His horse *waid* in the back and shoulder shotten.

*Shakspeare*

WAIFS, bona waviata, are goods stolen, and waived or thrown away by the thief in his flight, for fear of being apprehended. These are given to the king by the law, as a punishment upon the owner for not himself pursuing the felon, and taking away his goods from him. And therefore if the party robbed do his diligence immediately to



follow and apprehend the thief (which is called making fresh suit), or convict him afterwards, or procure evidence to convict him, he shall have his goods again. Waived goods do also not belong to the king till seized by somebody for his use; for if the party robbed can seize them first, though at the distance of twenty years, the king shall never have them. If the goods are hid by the thief, or left any where by him, so that he had not them about him when he fled, and therefore did not throw them away in his flight; these also are not bona waviata, but the owner may have them again when he pleases. The goods of a foreign merchant, though stolen and thrown away in flight, shall never be waifs: the reason whereof may be not only for the encouragement of trade, but also because there is no wilful default in the foreign merchant's not pursuing the thief, he being generally a stranger to our laws, our usages, and our language.

WAIL, *v. a., v. n., &* Italian *guala*; Arm. WAIL'ING, *n. s.* [*n. s.*] } *weala*. To moan; to WAIL'FUL, *adj.* } lament; bewail: to grieve audibly: audible sorrow: wailing is lamentation; moan: wailful, sorrowful; mournful.

Take up *wailing* for us, that our eyes may run down with tears. *Jer. ix. 18.*

I will wail and howl. *Micah.*  
The camp filled with lamentation and mourning, which would be increased by the weeping and *wailing* of them, which should never see their brethren. *Knolles.*

Lay lime to tangle her desires  
By *wailful* sonnets, whose composed rhimes  
Should be full fraught with serviceable vows. *Shaksp.*

Wise men ne'er *wail* their present woes,

But presently prevent the ways to *wail*. *Id.*

The *wailings* of a maiden I recite. *Gay.*

Say, if my spouse maintains her royal trust?

Or if no more her absent lord she *wails*.

But the false woman o'er the wife prevails. *Pope.*

Around the woods

She sighs her song, which with her *wail* resound. *Thomson.*

WAIN, *n. s.* } Contracted from waggon. A  
WAIN'ROPE. } carriage; a large cord, with which the load is tied on a waggon; cartrope.

There ancient Night, arriving, did alight

From her high heavy *wain*. *Spenser.*

Oxen and *wainropes* cannot hale them together. *Shakspeare.*

Your's be the harvest; 'tis the beggar's gain

To glean the fallings of the loaded *wain*. *Dryden.*

WAINSCOT, *n. s. & v. a.* Belg. *wagenschot*, of Goth. *wegg*; a wall, and *schot* a sheet. The inner covering of a wall; wooden lining of rooms: to line them thus.

Some have the veins more varied and chambletted; as oak, whereof *wainscot* is made. *Bacon.*

Musick soundeth better in chambers *wainscotted*. *Id.*

She never could part with plain *wainscot* and clean hangings. *Arbutnot.*

A rat your utmost rage defies,  
That safe behind the *wainscot* lies. *Swift.*

WAINSCOT, in building, is the timber-work that serves to line the walls of a room, being usually made in pannels, and painted, to serve instead of hangings.

WAIST, *n. s.* } Belg. *wast*; modern Got. *wahs-*  
WAIST'COAT. } *tas*; Welsh *gwase*. The smallest or middle part of the body; the part below the ribs; the middle floor of a ship: a waistcoat is a coat for this part of the body.

They seized, and with entangling folds embraced,  
His neck twice compassing, and twice his *waist*. *Denham.*

She, as a veil, down to her tender *waist*  
Her unadorned golden tresses wore  
Dishevelled. *Milton.*

Sheets of water from the clouds are sent,  
Which, hissing through the planks, the flames prevent,  
And stop the fiery pest; four ships alone  
Burn to the *waist*, and for the fleet atone. *Dryden.*

Stiff stays constrain her slender *waist*. *Gay.*

Selby leaned out of the coach to shew his laced *waist-*  
coat. *Richardson.*

WAIT, *v. a., v. n. &* Dutch *wachten*. To ex-  
WAITER, *n. s.* [*n. s.*] } pect; stay for; attend;  
WAIT'ING, *adj.* } accompany: to expect;  
attend (taking on); stay; lie in ambush; follow:  
an ambush: a waiter is an attendant: waiting, at-  
tending; serving: used in composition with man,  
maid, &c.

If he hurl at him by laying of *wait*, that he die, he

that smote him shall be put to death. *Numb. xxxv. 20.*

He is *waited* for of the sword. *Job, xv. 22.*

The dinner is on the table; my father desires your

worship's company. *Shakspeare.*

—I will *wait* on him.

He made me mad

To talk so like a *waiting* gentlewoman,

Of guns, and drums, and wounds. *Id.*

Bid them prepare within;

I am to blame to be thus *waited* for. *Id.*

It is a point of cunning to *wait* upon him, with

whom you speak, with your eye, as the Jesuits give

it in precept. *Bacon.*

Let the drawers be ready with wine and fresh glasses;

Let the *waiters* have eyes, though their tongues must

be tied. *Ben Jonson.*

It will import those men, who dwell careless, to en-  
ter into serious consultation how they may avert that

ruin, which *waits* on such a supine temper. *Decay of Piety.*

All the little time twigs laid

By Machiavel, the *waiting* maid. *Conway.*

Why sat'st thou like an enemy in *wait*? *Milton.*

Such doom

*Waits* luxury, and lawless care of gain. *Philips.*

Awed with these words, in camps they still abide,

And *wait* with longing looks their promised guide. *Dryden.*

Fortune and victory he did pursue,

To bring them, as his slaves, to *wait* on you. *Id.*

A man of fire is a general enemy to all the *waiters*

where you drink. *Tatler.*

How shall we know when to *wait* for, when to decline,

persecution? *South's Sermons.*

Remorse and heaviness of heart shall *wait* thee,

And everlasting anguish be thy portion. *Rowe.*

The *waiting*-maid hopes to ingratiate herself. *Swift.*

We can now not only converse with, but gladly at-  
tend and *wait* upon, the poorest kind of people. *Law.*

WAIVE, in law, a woman that is put out of the protection of the law. She is called waive, as being forsaken of the law, and not outlaw, as a man is; by reason women cannot be of the decenna, and are not sworn in leets to the king, nor to the law, as men are; whereas women are not, and so cannot be outlawed, since they never were within it.

WAIVER, in law, the passing by of a thing, or a declining or refusal to accept it. Sometimes it is applied to an estate, or something conveyed to a man, and sometimes to a plea, &c. A waiver or disagreement as to goods and chattels, in case of a gift, will be effectual. If a jointure of lands be made to a woman after marriage, she may waive this

after her husband's death 3 Rep. 27. An infant, or if he die, his heirs, may by waiver avoid an estate made to him during his minority. 1 Inst. 23. 348. But, where a particular estate is given with a remainder over, there regularly he that hath it may not waive it, to the damage of him in remainder: though it is otherwise where one hath a reversion; for that shall not be hurt by such waiver. 4 Shep. Abr. 192. After special issue joined in any action, the parties cannot waive it without motion in court. 1 Keb. 255. Assignment of error by attorney on an outlawry, ordered to be waived, and the party to assign in person, after demurrer for this cause. 2 Keb. 15.

WAKE, *v. n. v. a. &c.* } Saxon *pacian*; Goth.  
WAKEFUL, *adj.* [*n. s.*] } *wakan*; Belg. *waecten*;  
WAKEFULNESS, *n. s.* } Dan. *wakke*. To watch;  
WAKEN, *v. a.* } for *be* sleeping; cease or  
be roused from sleep; be put in action: to wake, verb active, or waken, is to rouse from sleep or inactivity; bring to life again: the verb neuter waken is also synonymous with wake: a wake is a vigil; feast of the dedication of a church: wakeful and wakefulness correspond.

Thou holdest mine eyes waking. *Psalm lxxvii. 4.*  
Prepare war; wake up the mighty men, let them come up. *Joel iii. 9.*  
A man that is wakened out of sleep. *Zech. iv. 1.*  
Fill oven full of flavnes, Ginne passe not for sleepe,  
To-morrow thy father his wake-daie will keepe.

The sisters awaked from dreams, which flattered them with more comfort than their waking would consent to. *Tusser.*  
*Sidney.*

All night she watched, ne once a-down would lay  
Her dainty limbs in her sad dremiment,  
But praying still did wake, and waking did lament. *Spenser.*

Before her gate high God did sweat ordain,  
And wakeful watches, ever to abide. *Id.*  
They waked each other, and I stood and heard them. *Shakespeare.*

Other perfumes are fit to be used in burning agues, consumptions, and too much wakefulness.

*Bacon's Natural History.*  
Why dost thou shake thy leaden sceptre? go,  
Bestow thy poppy upon wakeful woe. *Crashaw.*  
All thy fears,

Thy wakeful terrors, and affrighting dreams,  
Have now their full reward. *Denham's Sophy.*

By dimpled brook, and fountain brim,  
The wood-nymphs decked with daisies trim  
Their merry wakes and pastimes keep:  
What hath night to do with sleep? *Milton.*

They introduce  
Their sacred song, and waken raptures high. *Id.*  
Though wisdom wakes, suspicion sleeps. *Id.*

We make no longer stay; go, waken Eve. *Id.*  
Then Homer's and Tyrtæus' martial muse  
Wakened the world, and sounded loud alarms. *Roscommon.*

Early Turnus wakening with the light,  
All clad in armour, calls his troops to fight. *Dryden.*

Putting all the Grecian actors down,  
And winning at the wake their parsley crown. *Id.*  
I cannot think any time, waking or sleeping, without  
being sensible of it. *Locke.*

Sometimes the vulgar will of mirth partake,  
And have excessive doings at their wake. *King.*

What you've said  
Has waked a thought in me which may be lucky. *Roscoe.*

The droiling peasant scarce thinks there is any world  
beyond his village, nor gaiety beyond that of a wake.  
*Government of the Tongue.*

Thine, like Amphion's hand, had waked the stone,  
And from destruction called the rising town;  
Nor could he burn so fast as thou couldst build.

*Prior.*

The WAKE was kept with feasting and rural diversions. The learned Whitaker, in his History of Manchester, has given a particular account of the origin of wakes and fairs. He observes that every church at its consecration received the name of some particular saint: this custom was practised among the Romans, Britons, and continued among the Saxons; and in the council of Cealchythe, in 816, the name of the denominating saint was expressly required to be inscribed on the altars, and also on the walls of the church, or a tablet within it. The feast of this saint became of course the festival of the church. Thus Christian festivals were substituted in the room of the idolatrous anniversaries of heathenism. Accordingly, at the first introduction of Christianity among the Jutes of Kent, pope Gregory the Great advised what had been previously done among the Romans, viz. Christian festivals to be instituted in the room of the idolatrous, and the suffering day of the martyr whose relics were deposited in the church, or the day on which the building was actually dedicated, to be the established feast of the parish. Both were appointed and observed; and they were clearly distinguished at first among the Saxons, as appears from the laws of the Confessor, where the dies dedicationis, or dedicatio, is repeatedly discriminated from the propria festivitas sancti, or celebratio sancti. They remained equally distinct to the Reformation; the dedication day in 1536 being ordered for the future to be kept on the first Sunday in October, and the festival of the patron saint to be celebrated no longer. The latter was, by way of pre-eminence, denominated the church's holiday, or its peculiar festival: and, while this remains in many parishes at present, the other is so utterly annihilated in all, that bishop Kennet (says Mr. Whitaker) knew nothing of its distinct existence, and has attributed to the day of dedication what is true only concerning the saint's day. Thus instituted at first, the day of the tutelar saint was observed, most probably by the Britons, and certainly by the Saxons, with great devotion. And the evening before every saint's day, in the Saxon Jewish method of reckoning the hours, being an actual hour of the day, and therefore like that appropriated to the duties of public religion, as they reckoned Sunday from the first to commence at the sun-set of Saturday; the evening preceding the church's holiday would be observed with all the devotion of the festival. The people actually repaired to the church, and joined in the services of it; and they thus spent the evening of their greater festivities in the monasteries of the north, as early as the conclusion of the seventh century. These services were naturally denominated, from their late hours, wæccan or wakes, and vigils or eves. That of the anniversary at Rippon, as early as the commencement of the eighth century, is expressly denominated the vigil. But that of the church's holiday was named cyric wæccan, or church-wake, the church-vigil, or church-eve. And it was this commencement of both with a wake which has now caused the days to be generally preceded with vigils, and the church holiday particularly to be denominated the church wake. So religiously was the eve and festival of the patron saint observed for



many ages by the Saxons, even as late as the reign of Edgar, the former being spent in the church, and employed in prayer. And the wakes, and all the other holidays in the year, were put upon the same footing with the octaves of Christmas, Easter, and of Pentecost. When Gregory recommended the festival of the patron saint, he advised the people to erect booths of branches about the church on the day of the festival, and to feast and be merry in them with innocence. Accordingly, in every parish, on the returning anniversary of the saint, little pavilions were constructed of boughs, and the people indulged in them in hospitality and mirth. The feasting of the saint's day, however, was soon abused; and even in the body of the church, when the people were assembled for devotion, they began to mind diversions and to introduce drinking. The growing intemperance gradually stained the service of the vigil, till the festivity of it was converted, as it now is, into the rigor of a fast. At length they too justly scandalised the Puritans of the seventeenth century, and numbers of the wakes were disused entirely, especially in the east and some western parts of England; but they are commonly observed in the north, and in the midland counties. This custom of celebrity in the neighbourhood of the church, on the days of particular saints, was introduced into England from the continent, and must have been familiar equally to the Britons and Saxons, being observed among the churches of Asia in the sixth century, and by those of the west of Europe in the seventh. And equally in Asia and Europe, on the continent and in the islands, the celebrities were the causes of those commercial marts which we denominate fairs. The people resorted in crowds to the festival, and a considerable provision would be wanted for their entertainment. The prospect of interest invited the little traders of the country to come and offer their wares; and thus, among the many pavilions for hospitality in the neighbourhood of the church, various booths were erected for the sale of different commodities. In larger towns, surrounded with populous districts, the resort of the people to the wakes would be great, and the attendance of traders numerous; and this resort and attendance constitute a fair.—Basil expressly mentions the numerous appearance of traders at these festivals in Asia, and Gregory notes the same custom to be common in Europe. And, as the festival was observed on a feria or holiday, it naturally assumed to itself, and as naturally communicated to the mart, the appellation of feria or fair. Indeed, several of our most ancient fairs appear to have been usually held, and have been continued to our time, on the original church holidays of the places: besides it is observable that fairs were generally kept in church-yards, and even in the churches, and also on Sundays, till the indecency and scandal were so great as to need reformation.

WAKE, in navigation, the print or track impressed by the course of a ship on the surface of the water. It is formed by the reunion of the body of water which was separated by the ship's bottom whilst moving through it; and may be seen to a considerable distance behind the stern, as smoother than the rest of the sea. Hence it is usually observed by the compass, to discover the angle of lee-way. A ship is said to be in the wake of another when she follows her on the same track, or a line supposed to be formed on the continuation of her

keel. Two distant objects observed at sea are called in the wake of each other, when the view of the farthest is intercepted by the nearest, so that the observer's eye and the two objects are all placed on the same right line.

WAKE (Sir Isaac), a miscellaneous writer, born in Northamptonshire, and elected fellow of Merton College, Oxford, and public orator to the university. He was sent ambassador to Venice and Savoy, on which occasion he was knighted. He wrote, 1. *Rex Platonicus*: 2. *Discourse on the thirteen Cantons of the Helvetic League*: 3. *On the State of Italy*: 4. *On the Proceedings of the King of Sweden*; &c. He died in 1632.

WAKE (William), D. D., a learned prelate, born at Blandford, Dorsetshire, in 1657. He became fellow of Christ Church, Oxford, in 1672. He graduated in 1689, and was made chaplain to William and Mary, canon of Christ's Church, rector of St. James's, in 1694; dean of Exeter in 1701; bishop of Lincoln in 1705; and archbishop of Canterbury in 1716. He had a great controversy with Dr. Atterbury about the Rights of Convocations; and corresponded with some French bishops about a union between the churches. Some account and extracts of this correspondence are published in Dr. Maclaine's translation of Mosheim's Church History. He published, 1. *A Translation of the Epistles of the Apostolical Fathers*, 8vo: 2. *An Exposition of the Church Catechism*: 3. *Some Tracts against Popery*: and several sermons. He died in 1737.

WAKEFIELD (Robert), a learned divine, born in the north of England, and educated at Cambridge. In 1519 he became professor of Hebrew at Louvain. Soon after he returned to England, was made king's chaplain to Henry VIII., professor of Hebrew at Oxford, and a canon of Christ Church. He wrote, 1. *A Paraphrase on Ecclesiastes*: 2. *Syntagma Hebræorum*; and other tracts. He died in 1537.

WAKEFIELD (Gilbert), A. B., a learned political writer, born at Nottingham, in 1756. He was educated by Mr. Wooddeson, at Kingston upon Thames. In 1772 he entered at Jesus College, Cambridge, where he took his degree. In 1776 he published some Latin poems, and *Notes on Homer*. In 1778 he took deacon's orders, and became curate of Stockport, whence he removed to Liverpool. In 1779 he married, left the church, and became tutor in the dissenting academy at Warrington. He published 1. *Translations of St. Matthew, and the epistles to the Thessalonians*. 2. *An Enquiry into the Opinions of the Christian Writers of the first three centuries, concerning Jesus Christ*, in 4 vols. 4. *Silva Critica*. 5. He next astonished his friends with a pamphlet against public worship. After the French revolution he wrote some severe tracts against government. But his *Letter to the Bishop of Llandaff* subjected him and the printer to a prosecution, and two years imprisonment in Dorchester jail. He was liberated in May 1801, but died in September. As a classical scholar he had few equals, but he was both a Socinian and a republican, and of a temper singularly irritable and discontented. He published also *Tragediarum Græcarum delectus*, 2 vols. 12mo.; and a superb edition of *Lucretius*, 3 vols. 4to.

WAKEFIELD, a market town in the West Riding of Yorkshire, situate on the river Calder



eight miles and a half south of Leeds, and 180 north of London. The town consists chiefly of nine handsome built streets, paved, and lighted with gas, beautifully situate on an eminence sloping to the Calder, and is continually improving. The church is a lofty Gothic structure, with a high spire. An elegant new church, or chapel of ease, was erected towards the close of the eighteenth century. The Calvinists, Methodists, and other dissenters, have chapels in this town. The market cross consists of Doric columns supporting a dome, and has an ascent by a circular flight of stairs in the centre, leading to a room used as the town hall, in which the quarter-sessions for the West Riding and petty-sessions are held. The house of correction for the Riding, erected in 1770, is a noble building, and stands in an excellent and airy situation. The free grammar school is a good building, and is endowed with many benefactions. From it are several valuable exhibitions to the universities of Oxford and Cambridge. Of the other public buildings the chief are the new court, the new banks, the corn and auction marts, an elegant assembly room (attached to which is a library and news rooms), a neat theatre, a dispensary, an asylum for pauper lunatics, a charity school for clothing and instructing 106 boys and girls, and a cloth hall for exhibiting for sale the various woollen goods made here. The town has long been noted for its manufacture of woollen cloths and stuffs. The numerous manufactories here and in the neighbouring villages principally supply the markets at Leeds and Huddersfield; it has also an extensive trade in corn and coals. About the middle of September are horse races on a two mile course, on Wakefield-Outwood, two miles distant from the town. Wakefield has a navigation to Huddersfield by a canal from the Calder, in a line with the river Colne; to Barnsley by a canal; and to Leeds by the Calder, joining the Aire, where their united streams fall into the river Ouse at Armin, near Howden. Over the river is a handsome stone bridge of nine arches; and a warehouse thereon, originally a chapel, still exhibits some curious Saracenic architecture. A little above the bridge is a dam which forms an admirable cascade. Market on Friday, at which there is a considerable trade in wool and grain. Fairs 4th and 5th of July, and 11th and 12th of November. The first and third for cattle, the latter is a statute fair; besides these there is every Wednesday fortnight a considerable sheep and cattle fair.

WALCHEREN, or WALEHERN, an island of the Netherlands, in the province of Zealand, situated at the mouth of the Scheldt, and only separated from the islands of Beveland by a narrow channel called the Sloe. If not the largest it is the most populous and best cultivated of the islands of Zealand; but the climate is wretched. It is of an oblong form; its length from north-west to south-east being about twelve miles; its breadth from north-east to south-west eight miles. It would be subject to inundations from the sea, were it not protected by strong dykes. The dyke of West Cappel in particular is of great size. This island contains the three towns of Middleburgh the capital, Flushing, and Veere. The villages are numerous. It will long be memorable for the general sickness prevalent among the British troops during their occupation of it in 1809.

WALDO (Peter), a merchant of Lyons, who

flourished in the end of the eleventh century. Applying himself to the study of the Scriptures, and finding no warrant there for several of the Romish doctrines, particularly that of transubstantiation, he publicly opposed them. His followers, who were from him called Waldenses, being chased from Lyons, spread over Dauphine and Provence; upon which Philip II. is said to have razed 300 gentlemen's seats, and destroyed several walled towns, to stop their growth; but this, instead of suppressing, spread them over a great part of Europe. The articles of their faith, which they drew up and dedicated to the king of France, agreed in most points with those of the present Protestants.

WALES, a country situated in the south-west part of Britain, into which the ancient Britons retired from the persecution of the Saxons. Anciently it was of greater extent than it is at present, and comprehended all the country beyond the Severn; that is, besides the twelve counties included in it at present, those of Herefordshire and Monmouthshire, which now are reckoned a part of England, were then inhabited by three different tribes of the Britons, viz. the Silures, the Dimetæ, and the Ordovices. The Romans were never able to subdue them till the reign of Vespasian, when they were reduced by Julius Frontinus, who placed garrisons in their country to keep them in awe. Though the Saxons made themselves masters of all England, they never got possession of Wales, except the counties of Monmouthshire and Herefordshire, formerly a part of Wales.

About 870 Roderic, king of Wales, divided it among his three sons; and the names of these divisions were Demetia, or South Wales; Povesia, or Powis-Land; and Venedotia, or North Wales. Another division is mentioned afterwards in the records, viz. North Wales, South Wales, and West Wales; the last comprehending the counties of Monmouth and Hereford. The country derived the name of Wales, and the inhabitants that of Welsh, from the Saxons, who by those terms denote a country and people to which they are strangers; for the Welsh in their own language call their country Cymry, and their language Cymraeg. They continued under their own princes and laws from the above-mentioned period, and were never entirely subjected to the crown of England till the reign of Edward I., when Llewellyn ap Gryffith, prince of Wales, lost both his life and dominions. Edward, the better to secure his conquest, and to reconcile the Welsh to a foreign yoke, sent his queen to lie in at Caernarvon, where she was delivered of a prince; to whom the Welsh on that account the more readily submitted. On this occasion, Edward used a very pardonable piece of policy. Calling together the Welsh nobles, he took their oath, that they would choose a prince of their own blood royal, whom he would recommend, and a native, who could not speak a word of English. Ever since that time the eldest sons of the kings of England have commonly been created princes of Wales, and as such enjoy certain revenues from that country. As to the character of the Welsh, they are a brave hospitable people; and, though very jealous of affronts, passionate, and hasty, yet are easily reconciled. The common people look with a suspicious eye on strangers, and bear an hereditary grudge to the English nation, by whom their ancestors were expelled from the finest parts



of the island. The gentlemen are apt to value themselves upon the antiquity of their families. All the gentry both in town and country can speak English, especially in the counties bordering upon England. The common people in general only speak their own language, which is the ancient British; and not only differs entirely from the English, but has very little affinity with any of the western tongues, except the Gaelic, Erse, or Irish. It is said to be a dialect of the ancient Celtic, and in many respects to resemble the Hebrew. Most of the clergy are natives of the country, and understand English so well that they could exercise their functions in any part of Britain. The public worship, however, is as often performed in Welsh as in English, excepting in the towns, where the latter is the prevailing language. The country, though mountainous, especially in North Wales, is far from being barren. The hills, besides the metals and minerals they contain, feeding vast herds of small black cattle, deer, sheep, and goats, and their valleys abounding in corn, as their seas and rivers do in fish. Here are also wood, coal, and turf for fuel, in abundance. Wales is bounded on all sides by the Severn, except on the east, where it joins the counties of Chester, Salop, Hereford, and Monmouth. Its length, from the south part of Glamorganshire to the extremity of Flintshire north, is computed at about 113 miles; and its greatest breadth, from the Wey east, to St. David's in Pembrokehire west, is nearly of the same dimensions, about ninety miles. After the conquest of Wales by Edward I. very material alterations were made in their laws, to bring them nearer to the English standard, especially in the forms of their judicial proceedings; but they still retain very much of their original polity, particularly their rule of inheritance, viz. that their lands are divided equally among all the issue male, and do not descend to the eldest son alone. By other subsequent statutes their provincial immunities were still farther abridged; but the finishing stroke to their independency was given by stat. 27 Hen. VIII., c. 26, which at the same time gave the utmost advancement to their civil prosperity, by admitting them to a thorough communication of laws with the subjects of England. Thus were these brave people gradually conquered into the enjoyment of true liberty; being insensibly put upon the same footing, and made fellow citizens, with their conquerors. It is enacted by 27 Hen. VIII., 1. That the dominion of Wales shall be for ever united to the kingdom of England. 2. That all Welshmen born shall have the same liberties as other king's subjects. 3. That lands in Wales shall be inheritable according to the English tenures and rules of descent. 4. That the laws of England, and no other, shall be used in Wales: besides many other regulations of the police of this principality. And 34 and 35 Hen. VIII., c. 26, confirms the same, adds farther regulations, divides it into twelve counties, and in short reduces it into the same order in which it stands at this day; differing from the kingdom of England in only a few particulars, and those too of the nature of privileges (such as having courts within itself, independent of the process of Westminster-hall), and some other immaterial peculiarities, hardly more than are to be found in many counties of England itself.

It appears that there are in Wales 900,000 acres arable, and 2,600,000 pasturage, leaving 1,700,000

acres in a state of waste, of which quantity about 700,000 acres are capable of being brought into cultivation. The principality is divided into North and South Wales, containing twelve counties. North Wales comprehends the counties of Anglesea, Carnarvon, Denbigh, Flint, Merioneth, and Montgomery; and South Wales, the counties of Brecknock, Cardigan, Carmarthen, Glamorgan, Pembroke, and Radnor. The whole contains 751 parishes, and fifty-eight market towns. The amount of the sum raised for the maintenance of the poor, in 1815, was £298,251, which was at the rate of 2s. 9½d. in the pound. The amount of the rate under the act granting a tax on property, in 1815, was £2,153,801. Wales sends twenty-four members to parliament, viz. one for each county, and one for the principal town in each county, except that of Merioneth, in the room of which two towns in the county of Pembroke each send one member.

The general aspect of the principality is bold and romantic, consisting of almost continued ranges of lofty mountains, and impending craggs, intersected by numerous deep ravines, with extensive valleys. The principal range in North Wales is that of which the lofty Snowdon occupies the centre. In South Wales the mountains are not so considerable, yet they are far from being deficient in elevation. Among these, numerous lakes are scattered, and, though none of them are of remarkable magnitude, many are distinguished for the beauty of the surrounding scenery. The language, manners, and customs, of Wales are still widely different from those of England. In point of population and fertility, South Wales has by far the superiority over the North; and, although the whole is very mountainous, its produce is fully sufficient for its abstemious inhabitants. Those counties bordering on the sea-coast have a mild climate, but are wet; and the interior parts have the usual sharpness of other mountainous regions, though, on the whole, the air in general is highly salubrious, and the country healthy. The cattle in general are small, but the flesh is particularly good, and provisions in general are reasonable. Numbers of goats are wild among the mountains.

Wales is distinguished for the profusion of its rivers and streams; the principal are the Severn, Dee, Wye, Uske, Conway, Clwyd, and Tivy. Most of these streams are valuable for their fisheries, and many of its rivers, aided by numerous canals, are of the first importance to its commercial prosperity. The whole of Wales is distinguished for the abundance of its mineral productions. Silver, lead, iron, quartz, copper, spar, coals, &c., are found in many parts. The agriculture of Wales is also in a course of rapid improvement. Travelling has also been greatly facilitated by the attention which has recently been given to the better construction of the roads.

The commerce of the principality arises from its numerous manufactories of flannels, webs, stockings, wigs, gloves, sacks, cottons, and cotton-twist, and principally from its extensive establishments of copper, iron, tin-plates, and lead-works. It contains a great number of roadsteads and harbours, some of which are extremely commodious, and many may be made so by the erection of piers and other improvements. Ecclesiastically Wales is in the province of York; and is divided into the dioceses of St. David's, Bangor, Llandaff, and St.



Asapn; legally, it is divided into four circuits, viz. the Chester circuit, for the counties of Chester, Flint, Denbigh, and Montgomery; the Northern circuit for Anglesea, Carnarvon, and Merioneth; the South-Eastern circuit for Radnor, Brecon, and Glamorgan; and the South-Western circuit for Pembroke, Cardigan, and Carmarthen.

WALES, NEW SOUTH, an extensive tract of country on the eastern coast of NEW HOLLAND (which see), discovered by captain Cook in the year 1770, on a course, which, if laid down in a straight line, of no less than 27° of lat., amounting to nearly 2000 miles. After hovering about the coast for some time, he at length came to an anchorage in the only harbour which appeared to him commodious; and which, in consequence of the innumerable varieties of herbage which were found on shore, he called Botany Bay. Governor Philip was sent to this new continent, where he arrived on the 20th of January, 1788, with 800 convicts, and a portion of marines, and laid the foundation of the new settlement, which continued gradually to improve until the close of the year 1792. The infant colony encountered numberless difficulties, partly from the profligate habits of the convicts, which were constantly producing disorders, and partly from other obstructions incident to new establishments in unsettled countries. It nevertheless increased, though sometimes brought to the verge of destruction by want of provisions; and in the year 1800 contained, including the settlers in Norfolk island, 6000 inhabitants. In 1801 a great flood took place in the river Hawkesbury, which rose about seventy or eighty feet; and, as the chief cultivation of the colony lay along its banks, this calamity threatened a general famine. The progress of the colony has been frequently retarded by similar accidents. In 1809 the population had increased to 9356, of whom upwards of 6000 supported themselves. According to the latest accounts, the number of inhabitants in the various towns and districts belonging to Port Jackson amounted to 16,664, of whom there were 6297 convicts.

The British settlements in this quarter contain the town of Sydney, which is the capital of New South Wales, and is about seven miles distant from the head of Port Jackson; also the town of Paramatta, which is situated at the head of Port Jackson harbour, at the distance of about eighteen miles by water, and fifteen by land, from Sidney; Windsor, which is thirty-five miles distant from Sydney westward, and is situated near the confluence of the South creek with the Hawkesbury; Liverpool, eighteen miles from Sydney. There is also a small settlement in the district of Coal River, about sixty miles northward of Port Jackson, where the town of Newcastle is situated. This is the place of transportation for criminals from Botany Bay, and contains between 400 and 500 of these incorrigible offenders, besides thirty free settlers, and fifty troops.

For a long period, the Blue Mountains formed an impassable boundary to the east. But, in the course of the summer of 1813, a passage across these mountains was attempted by a party of gentlemen, who were anxious to find pasture for their flocks during this trying season. They accordingly succeeded, after great difficulties, in penetrating across this difficult ridge, when they

discovered a fine champaign country, extending many miles before them, and watered by many fine streams. A carriage road has been since constructed across these mountains to the distance of upwards of 100 miles. In order to prosecute farther discoveries into the interior, an expedition was sent out in 1817 to trace to its termination a large river running into the interior, and named the Lachlan. This expedition was under the direction of Mr. Oxley; and, after a fatiguing journey, the termination of the river was traced into an extensive swamp. Another expedition was fitted out in 1818, for the purpose of exploring the Macquarrie, a still more important stream, which, like the former, took its course into the interior, and which was also found to terminate in extensive morasses, spreading far and wide over an extensive flat, where there was no outlet for the collected waters from the higher grounds. From this point the party proceeded westward in a direct course for the coast. Their course lay through a swampy country at first; but afterwards the country improved, and was occasionally both fertile and well watered. On crossing the Blue Mountains, they found a beautiful river, which they called Hastings River, which terminated in the ocean, by a convenient estuary, which they named Port Macquarrie, in lat. 31° 25' S.

WALES, in a ship, an assemblage of strong planks extending along a ship's side, throughout her whole length, at different heights, and serving to reinforce the decks, and form the curves by which the vessel appears light and graceful on the water. As the wales are framed of planks broader and thicker than the rest, they resemble ranges of hoops encircling the sides and bows. They are usually distinguished into the main-wale and the channel-wale. The situation of the wales, being ascertained by no invariable rule, is generally submitted to the fancy and judgment of the builder.

WALES (William), F. R. S., an English astronomer and mathematician, was born in 1734. Having visited Hudson's Bay, in 1769, he published an account of his observations made there on the transit of Venus, and was afterwards the astronomer on the voyage of discovery undertaken by captain Cook. Mr. Wales accompanied that celebrated circumnavigator on both his first voyages, of which he kept a journal, afterwards printed under the title of *Astronomical Observations in the Southern Hemisphere*, &c. He was also the author of a treatise On the Achronical Rising of the Constellation Pleiades, inserted by Dr. Vincent in his *Nearchus*; On the Discovery of the Longitude by means of Time-pieces; Remarks on Forster's Account of Cook's last Voyage; Enquiry into the Population of England and Wales; Robertson's Elements of Navigation improved; and Restoration of a Work of Apollonius; besides a variety of papers in the Philosophical Transactions. At the time of his decease, which took place in 1798, he filled the situations of mathematical master at Christ's Hospital, and secretary to the board of longitude.

WALET, a city of Central Africa, capital of the kingdom of Beeroo. It has never been visited by any European, but is, according to Park, larger than Tombuctoo. Its trade is chiefly confined to salt. It has been supposed, on pretty plausible grounds, to be the Ulil, which Edrisi represents as supplying all the countries on the Niger with salt,



and was described as ten days journey from Benownm, and eleven from Tombuctoo.

WALK, *v. n., v. a.*, } Saxon *wealcan*, to roll;  
WALK'ER, [*& n. s.*] Belg. *walken*; Teut. *walk-*  
WALK'INGSTAFF. } *en.* To move by steps;  
come or go; move at a slow pace; be in motion;  
act: as a verb active, to pass through; lead: the  
act of walking; gait; step; exercise; avenue; way;  
space: the noun substantives correspond.

The Lord hath blessed thee; he knoweth thy walking  
through this wilderness. *Deut. ii. 7.*

Do justly, love mercy, and walk humbly with thy  
God. *Micah.*

The mountains are his walks, who wandering feeds  
On slowly springing herbs. *Sandy's Paraphrase.*

As she went, her tongue did walk  
In foul reproach, and terms of vile despoit;  
Provoking him by her outrageous talk. *Spenser.*

Sir, walk in.

—I had rather walk here, I thank you. *Shakspeare.*

What mean you, Cæsar? think you to walk forth? *Id.*

Affairs that walk,

As they say spirits do at midnight, have  
In them a wilder nature than the business

That seeks dispatch by day. *Id. Henry VIII.*

I do not without danger walk these streets. *Shakspeare.*

He hath left you all his walks,

His private arbours, and new-planted orchards,  
On that side the Tiber. *Id. Julius Cæsar.*

There were walking spirits of the house of York, as  
well in Ireland as in England. *Davies's Ireland.*

Thus with a double course, in the same sphere,  
He runs the day and walks the year. *Cowley.*

Do you think I'd walk in any plot,

Where madam Sempronias should take place of me,  
And Fulvia come i' the rear? *Ben Jonson.*

A man was seen walking before the door very com-  
posedly. *Clarendon.*

Set women in his eye, and in his walk,  
Among daughters of men the fairest found. *Milton.*

Goodliest trees planted with walks and bowers. *Id.*  
These bowers as wide as we need walk. *Id.*

The club which a man of an ordinary size could not  
lift, was but a walking-staff for Hercules. *Glanville.*

Our souls, for want of that acquaintance here

May wander in the starry walks above. *Dryden.*

Morpheus, of all his numerous train, expressed

The shape of man, and imitated best,

The walk, the words, the gesture could supply,

The habit mimic, and the mien belie. *Id.*

She would never miss one day

A walk so fine, a sight so gay. *Prior.*

May no such vicious walkers crowd the street. *Gay.*

Wanting an ampler sphere to expatiate in, he opened  
a boundless walk for his imagination. *Pope.*

No rich or noble knave

Shall walk the world in credit to his grave. *Pope.*

I ride and walk, and am reputed the best walker in  
this town. *Swift to Gay.*

They are to be cautiously studied by those who are  
ambitious of treading the great walk of history. *Reynolds.*

WALKER (Clement), esq., a celebrated English  
historian, born at Cliffe in Dorsetshire, and educated  
at Christ's Church, Oxford, after which he retired  
to his estate in Somersetshire. Under Charles I.  
he was usher of the exchequer, and M. P. for  
Wells. He was a zealous Presbyterian, and so  
great an enemy to Cromwell and the Independents,  
that he was sent to the Tower, where he died in  
1651. He wrote, 1. The History of Independency,  
which contains many curious particulars no where  
else to be found. 2. The High Court of Justice,  
or Cromwell's Slaughter-house, &c., and other  
works.

WALKER (Sir Edward), an English historian,  
born in Somersetshire. In 1639 he was made  
secretary at war; and was present in the royal  
army at the battle of Edgehill. See ENGLAND.  
In 1643 he was appointed garter king at arms,  
and knighted. After 1660 he became a clerk of  
the privy-council. He wrote, 1. Historical Dis-  
courses, folio. 2. Order of the Ceremonies at the  
Celebration of St. George's Feast at Windsor, in  
1674. 3. Acts of the Knights of the Garter in  
the Civil Wars, &c. He died suddenly in 1676.

WALKER (George), a celebrated Irish Protestant  
divine, who bravely defended Londonderry in  
1689 against the troops of James II., till it was  
effectually relieved. He was slain at the battle of  
the Boyne in 1690.

WALKER (John), D. D., an English divine, born  
in Devonshire. He became rector of St. Mary's,  
Exeter. He wrote An Attempt towards Recovering  
an Account of the Sufferings of the Clergy in the  
Great Rebellion, folio, 1714; for which the uni-  
versity of Oxford made him D. D. He died in  
1725.

WALKER (Obadiah), an English divine, born in  
Yorkshire, and educated at Oxford where he was  
fellow; but was deprived by the parliament in  
1648. He recovered his place in 1660, and in  
1676 was chosen master. But in 1685 he turned  
Papist, and published a virulent invective against  
Luther; for which, in 1689, he was deprived of  
his place. He went to London, lived with his old  
pupil Dr. Radcliffe, and died in 1698.

WALKER (Robert), D. D., a late eminent cler-  
gyman of the church of Scotland, who was many  
years minister of the High Church at Edinburgh,  
and colleague of the celebrated Dr. Blair. He  
published 4 vols. of sermons, and several tracts on  
theology. He died in 1788.

WALKER (Robert), chief painter to Oliver Crom-  
well, whose portrait he painted oftener than once.  
He lived in Arundel house. Walker died in 1670.

WALKER (William), a learned grammarian and  
divine, born in 1625, who was successively master  
of Lowth and Grantham schools. Sir Isaac New-  
ton was his pupil. He became rector of Colling-  
worth in Lincolnshire, where he died in 1684, aged  
sixty-one. He published several tracts on Gram-  
mar, Rhetoric, and Logic; but his chief work is A  
Treatise on English Particles.

WALKER (Adam), a late learned writer, was a na-  
tive of Westmoreland, in which county his father was  
a small woollen manufacturer. He was born in 1731,  
and his turn for mechanics developed itself early.  
He employed his leisure hours in the construction  
of models of corn, paper, and fulling-mills, which  
he erected in miniature on a little brook near his  
father's dwelling; and, having borrowed a few  
books, built himself a hut in the neighbouring  
thicket. An offer of a situation as usher in the  
school at Ledsham, in the west riding of Yorkshire,  
drew him from home at the age of fifteen, in which  
capacity he so far improved his opportunities as to  
qualify himself for the mathematical mastership in  
the free school at Macclesfield. In this town he  
also engaged in business, but trade appears not to  
have suited him, and, becoming bankrupt, he is  
said to have entertained at one time an intention  
of passing the remainder of his life as an anchorite  
in one of the small islands of Windermere. Fortu-  
nately a public lecture on astronomy, delivered by  
him at Manchester, decided his future prospects;



and, relinquishing an extensive seminary which he had established, he visited most of the principal cities and towns in the kingdom as a lecturer on astronomy. In 1778 he undertook, at the instance of Dr. Priestley, to open the Haymarket Theatre in that capacity, and, his success being decided, he fixed his abode in the metropolis, and continued to read a course of lectures every winter in a house which he had taken for that purpose in George Street, Hanover Square, attending at intervals Eton, Winchester, Westminster, and other great foundation schools. His death took place 11th of February 1821. His writings comprise an Analysis of his Lectures, printed in 8vo.; a treatise on the Cause and Cure of Smoky Chimneys; Philosophical Estimate of the Causes, Effects, and Cure of Unwholesome Air in Cities, 8vo.; Ideas suggested in an Excursion through Flanders, Germany, Italy, and France, 8vo., 1791; Remarks made in a Tour to the Lakes of Westmorland and Cumberland in the Summer of 1791, to which is annexed a Sketch of the Police, Religion, Arts, and Agriculture of France, made in an Excursion to Paris in 1785, 8vo., 1792; a System of Familiar Philosophy in Lectures, 4to., 1799; A Treatise on Geography and the Use of the Globes, 12mo.; and various papers in the Magazines, Philosophical Transactions, Young's Annals of Agriculture, &c. His mechanical skill is attested by several ingenious inventions, and especially by his Eidouranon, or transparent orrery, and the revolving lights on the rocks of Scilly.

WALKUFFA, in botany. See ETHIOPIA.

WALL, *n. s. & v. a.* } Sax. *wall*; Belg. *walle*;

WALL'EYED, *adj.* } Welsh *wal*; Lat. *vallum*.

WALL'FRUIT, *n. s.* } A continued fence; a series of brick or stone, or other conjoined materials; the side of a building: to wall is to fence or enclose with walls: 'to take the wall,' take the best or most honorable place: wall-eyed is white-eyed: wall-fruit, fruit ripened on a wall.

The walled towns do work my greater woe:

The forest wide is fitter to resound

The hollow echo of my careful cries.

*Spenser.*

I will take the wall of any man or maid of Montague's.

*Shakespeare. Romeo and Juliet.*

With love's light wings did I o'erperch these walls;  
For stony limits cannot hold out love.

*Shakespeare.*

Wall-eyed slave! whither wouldst thou convey  
This growing image of thy fiend-like face?

*Id.*

His council advised him to make himself master of  
some good walled town.

*Bacon's Henry VII.*

The Spaniards cast themselves continually into roundels,  
their strongest ships walling in the rest.

*Bacon.*

The terror of his name, that walls us in  
From danger.

*Denham's Sophy.*

Part rise in crystal wall or ridge direct.

*Milton.*

There bought a piece of ground, which, Birra called  
From the bull's hide, they first inclosed and walled.

*Dryden.*

To wallfruit and garden plants there cannot be a  
worse enemy than snails.

*Mortimer's Husbandry.*

When once the poet's honour ceases,

From reason far his transports rove:

And Boileau, for eight hundred pieces,

Makes Louis take the wall of Jove.

*Prior.*

WALL, in architecture, the principal part of a building, as serving both to enclose it, and to support the roof, floors, &c.—Walls are distinguished into various kinds, from the matter whereof they consist; as plastered or mud walls, brick-walls, stone-walls, flint or boulder-walls, and boarded-walls. See ARCHITECTURE.

WALLS, cob, or mud. In those parts of England where stone is scarce, it is usual to make walls and houses of mud, or, as it is called in Devonshire, cob; which is a composition of earth and straw, wet up somewhat like mortar, but well beat and trod together. When a wall is making, after being raised to a certain height, it is allowed time to pitch or settle before the work is resumed. Some value themselves on their skill in building with this composition; the price, when materials are found, is generally in Devonshire 3s. per perch of sixteen feet and a half; but a stone foundation costs more. Houses built with this, being covered with thatch, are very dry and warm; a cob wall, if in a good situation, will last above fifty years. When pulled down, they are used as manure.

WALL (Martin), M. D., a learned physician, born at Powick, in Worcestershire, in 1708. He was educated at Merton College, Oxford, of which he became fellow. He settled at Worcester, wrote on the virtues of Mineral Waters, and other medical subjects. He died at Bath in 1776.

WALLACE (Sir William), one of the most public-spirited and disinterested patriots that any age or country has produced, a gallant general of the Scots, who endeavoured to rescue his country from the English yoke; but, being betrayed and taken prisoner, he was unjustly tried by the English laws, condemned, and executed as a traitor to Edward I., in 1304. See SCOTLAND.

WALLACE, the Rev. Dr., who was for many years one of the ministers of Edinburgh, and a professor of the University, flourished about the beginning of the eighteenth century, and published an elaborate Essay on the Numbers of Mankind, lately republished, in consequence of the discussions occasioned by Malthus's book of population. We have met with no memoir of him.

WALLER (Edmund), a celebrated English poet, the son of Robert Waller, esq., of Agmondesham in Buckinghamshire, by Anne the sister of the great Hamden. He was born in 1605: and sent first to Eton, afterwards to King's College, Cambridge, where, at seventeen years of age, he was chosen into the last parliament of James I. as Burgess for Agmondesham. He began to exercise his poetical talent so early as 1623, as appears from his verses 'upon the danger his majesty (then prince) escaped in the road of St. Andro;' where, returning from Spain, he was nearly cast away. He married the daughter and heiress of a rich citizen, against a rival whose interest was espoused by the court. But he became a widower before he was twenty-five, when he began to have a passion for Sacharissa, a fictitious name he gave the lady Dorothy Sidney, daughter to the earl of Leicester, afterwards wife to the earl of Sunderland. He was now known at court, caressed by all who had any relish for wit and humor; and was one of the famous club of which lord Falkland, Mr. Chillingworth, &c., were members. He was elected M. P. in 1640. An intermission of parliaments having disgusted the nation, and raised jealousies against the designs of the court, he was one of the first who condemned these measures. He made a speech in the house on this occasion, in opposition to the court. But he voted against the abolition of episcopacy. He opposed the court also in the long parliament, and was chosen to impeach judge Crawley, which he did in a warm and eloquent speech, July 16th, 1641. This speech was so



highly applauded, that 20,000 copies of it were sold in one day. In 1642 he was a commissioner appointed by the parliament to present their propositions of peace to the king at Oxford. In 1643 he was deeply engaged in a design to deliver up the city of London and the tower to the king; for which he was tried and condemned, together with Mr. Tomkins his brother-in-law, and Mr. Chaloner. These two suffered death; but he obtained a reprieve: he, however, suffered a year's imprisonment, and paid a fine of £10,000. After this, he became particularly attached to Oliver Cromwell, upon whom he wrote a very handsome panegyric. He also wrote a noble poem on the death of that great man. At the Restoration, he was treated with great civility by Charles II., who always made him one of the party in his diversions at the duke of Buckingham's, &c. He wrote a panegyric upon his restoration. He sat in several parliaments after the Restoration, and enlivened their debates much with his wit, his natural vivacity making his company agreeable to the last. He died of a dropsy in 1687, and was interred in Beaconsfield, where a monument is erected to his memory. He is esteemed the most elegant and harmonious versifier of his time, and a great refiner of the English language. The best edition of his works, containing poems, speeches, letters, &c., is that published in 4to. by Mr. Fenton, in 1730.

**WALLET, n. s.** Sax. peallian, to travel. A bag in which the necessities of a traveller are put; a knapsack.

Who would believe that there were mountaineers Dewlap like bulls, whose throats had hanging at them *Wallets of flesh?* *Shakspeare.*

Having entered into a long gallery, he laid down his *wallet*, and spread his carpet, in order to repose. *Addison.*

**WALLINGFORD**, Moreton hundred, Berkshire, forty-six miles west from London, contains 476 houses, 2397 inhabitants, and returns two members to parliament. This privilege was conferred in 23 Edward I., and the right of election vested in the mayor, aldermen, bailiffs, and eighteen assistants, together with the inhabitants of the borough paying scot and lot, and not receiving alms, which at present amount to 250. This town is situated on the banks of the Thames, over which it has a neat stone bridge, which has of late years been partly rebuilt. There are three parish churches in the town, one of which, St. Peter's, was rebuilt by public subscription, and since ornamented with a spire of a singular form. In the market place is a convenient well built town hall, in which the assizes have been sometimes holden, and where the business of the quarter sessions of the borough is always transacted. The principal charities are a free-school and alms-house. During the storm of civil war which Stephen brought upon this country, this town was subjected to all the horrors of a siege; and in after times, during the reign of Charles I., it was garrisoned for the king, when two churches were destroyed, and only a small part of another left standing. Near the river side, and on the estate of James Blackstone, esq., the mouldering remains of the ancient castle may yet be discovered; but they give no idea of that place which regal armies once besieged in vain. Fairs Tuesday before Easter, June 24th, September 29th, December 17th. Markets Tuesday and Friday. But the fair in September, and the market on Friday, are the only ones which are well attended

**WALLIS (Dr. John)**, a celebrated mathematician, educated at Cambridge; where he became fellow of Queen's College, till, by his marriage, he vacated it. In 1640 he received holy orders, and became chaplain to lady Vere. While he lived in this family, he cultivated the art of deciphering. In 1643 he published, *Truth Tried; or animadversions on the lord Brooke's treatise, called The Nature of Truth, &c.* In 1644 he was chosen one of the secretaries to the assembly of divines at Westminster. Dr. Peter Turner, Savilian professor of geometry in Oxford, being ejected by the parliament's visitors in 1649, Mr. Wallis was appointed to succeed him in that place. In 1653 he published at Oxford a *Grammar of the English Tongue*, in Latin. In 1655 he entered the lists with Mr. Hobbes; and their controversy lasted a considerable time. In 1657 the doctor published his *Mathematical Works*. Upon the death of Dr. Langbaine, he was chosen *custos archivorum* of the university. After the Restoration he met with great respect, the king himself entertaining a favorable opinion of him on account of some services he had done both to his royal father and himself. He was therefore confirmed in his places, admitted one of the king's chaplains in ordinary, and appointed one of the divines empowered to review the book of common prayer. He continued a steady conformist till his death, in 1703. He was one of the first members of the Royal Society. Besides the works above-mentioned, he published many others.

**WALLIS'S ISLANDS**, in the South Pacific Ocean, discovered by captain Wallis in the year 1767, surrounded by a reef of rocks. The inhabitants, according to his observations, were robust and active, quite naked, except a kind of mat wrapped round the middle, and no other animal was seen, either bird or beast, except sea fowl. The only fruit were a few cocoa-nuts. Long. 177° W., lat. 13° 18' S.

**WALLOW, v. n. & n. s.** Sax. *palpan*; Goth. *walugan*. To move heavily or clumsily; roll; roll in fith or mire: a rolling walk.

Gird thee with sackcloth, and *wallow* thyself in ashes.

*Jeremiah vi.*  
Dead bodies, in all places of the camp, *wallowed* in their own blood. *Knolles's History of the Turks.*

Part, huge of bulk!  
*Wallowing* unwieldy, enormous in their gait,  
Tempest the ocean. *Milton's Paradise Lost.*

One taught the toss, and one the French new *wallow*;  
His sword-knot this, his cravat that designed. *Dryden.*

A boar was *wallowing* in the water, when a horse was going to drink. *L'Estrange.*

**WALL RUE**, in botany, is a species of asplenium, or spleenwort.

**WALNUT, n. s.** Sax. *palh hnuta*; Swed. and Belg. *walnut*. A large kind of nut. The *nux juglans*.

'Tis a cockle or a *walnut-shell*;  
A knack, a toy. *Shakspeare. Taming of the Shrew.*  
Some woods have the veins smooth, as fir and *walnut*.  
*Bacon.*

**WALNUT**, in botany. See **JUGLANS**.

**WALNUT, JAMAICA.** See **HURA**.

**WALPOLE (Sir Robert)**, earl of Orford, was born at Houghton in Norfolk, September 6th, 1674, and educated at Eton. Thence he was elected to King's College, Cambridge; but, succeeding to the family estate by the death of his elde brother, he resigned his fellowship. In 1700 he was chosen



M.P. for King's Lynn, and represented that borough in several succeeding parliaments. In 1705 he was nominated one of the council to prince George of Denmark, lord high admiral of England; in 1707 appointed secretary at war; and, in 1709, treasurer of the navy. In 1710, upon the change of the ministry, he was removed from all his posts, and held no place afterwards during the queen's reign. In 1711 he was expelled from the house of commons for what they called notorious corruption in his office as secretary at war. The borough of Lynn, however, re-elected him; and, though the house declared the election void, yet they persisted in the choice. In the well-known debate relating to Steele for publishing the *Crisis*, he greatly distinguished himself in behalf of liberty, and added to the popularity he had before acquired. On the death of the queen, a revolution of politics took place, and the Whig party prevailed both at court and in the senate. Walpole had before recommended himself to the house of Hanover by his zeal for its cause, when the commons considered the state of the nation with regard to the Protestant succession: and he had now the honor to procure the assurance of the house to the new king (which attended the address of condolence and congratulation), 'that the commons would make good all parliamentary funds.' It is therefore not to be wondered at, that his promotion soon took place after the king's arrival; and that in a few days he was appointed receiver and pay-master general of all the guards and garrisons, and of all other the land forces in Great Britain, paymaster of the royal hospital at Chelsea, and likewise a privy counsellor. On the opening of the new parliament, a committee of secrecy was chosen to enquire into the conduct of the late ministry, of which Walpole was appointed chairman; and, by his management, articles of impeachment were read against the earl of Oxford, lord Bolingbroke, the duke of Ormond, and the earl of Strafford. The eminent service he was thought to have done the crown, by the vigorous prosecution of those ministers who were deemed the chief instruments of the peace, was soon rewarded by the extraordinary promotions to the offices of first commissioner of the treasury, and chancellor, and under treasurer of the exchequer. In two years he resigned all his offices on account of a misunderstanding which took place between him and the rest of the ministry about certain supplies demanded for the support of his majesty's German dominions. On the day of his resignation he brought in the famous sinking fund bill. In the next session of parliament, Walpole opposed the ministry in every thing. But early in 1720 he was again appointed paymaster of the forces, and several of his friends were found soon after in the list of promotions. It was not long before he acquired full ministerial power, being appointed first lord commissioner of the treasury, and chancellor of the exchequer; and when the king went abroad, in 1723, he was nominated one of the lords justices for the administration of government, and was sworn sole secretary of state. About this time his eldest son was created a peer, by the title of baron Walpole of Walpole. In 1725 he was made knight of the bath, and in 1726 knight of the garter. He was an enemy to war, and the friend of commerce; and, because he did not resent some petty insults of the court of Spain so suddenly as the fiery part of the nation thought he should have

done, a formidable opposition was formed against him in the house, which had influence enough to employ in its cause almost all the wit of the nation. The opposition prevailed, and the nation was indulged in a war, of which it surely had no cause to boast of the success. To encourage commerce, and improve the revenue, Sir Robert projected a scheme for an extension of the excise, as the only means of putting a stop to the frauds of merchants and illicit traders. This was another ground of clamor to the orators within, and the wits without doors. The minister was therefore obliged to abandon the scheme, which was reserved for a succeeding administration to carry into execution. In 1742 the opposition prevailed; and Sir Robert, being no longer able to carry a majority in the house of commons, resigned all his places and fled for shelter behind the throne. He was soon afterwards created earl of Orford; and the king, in consideration of his long and faithful services, granted him a pension of £4000 per annum. The remainder of his life he spent in tranquillity and retirement, and died in 1745, the seventy-first year of his age. He has been severely, and not unjustly, censured for that system of corruption by which he almost avowed that he governed the nation; but the objects which he had in view are now acknowledged to have been in a high degree praise-worthy. Burke says his only defect as a minister was the want of sufficient firmness to treat with contempt that popular clamor, which, by his yielding to it, hurried the nation into an expensive and unjust war. But his rancorous prosecution of Atterbury bishop of Rochester (see *ATTERBURY*) may be considered as something worse than a defect; it was a fault for which no apology can be made; because, whether that prelate was innocent or guilty, of his guilt no legal proof ever appeared. To whatever objections his ministerial conduct may be liable, in his private character he is universally allowed to have had amiable and benevolent qualities. That he was a tender parent, a kind master, a beneficent patron, a firm friend, an agreeable companion, are points that have been seldom disputed; and so calm and equal was his temper, that Pulteney, his great rival and opponent, said, he was sure that Sir Robert Walpole never felt the bitterest invectives against him for half an hour. About the end of queen Anne's reign, and the beginning of George I.'s, he wrote the following pamphlets. 1. *The Sovereign's Answer to the Gloucestershire Address*. The sovereign meant Charles duke of Somerset, so nicknamed by the Whigs. 2. *Answer to the Representation of the House of Lords on the State of the Navy, 1709*. 3. *The Debts of the Nation stated and considered, in four papers, 1710*. 4. *The thirty-five Millions accounted for, 1710*. 5. *A letter from a Foreign Minister in England to Monsieur Pettecum, 1710*. 6. *Four Letters to a Friend in Scotland upon Sacheverell's Trial*; falsely attributed in the *General Dictionary* to Mr. Maynwaring. 7. *A short History of the Parliament*. It is an account of the last session of the queen. 8. *The South-Sea Scheme considered*. 9. *A Pamphlet against the Peerage Bill, 1719*. 10. *The Report of the Secret Committee, June 9th 1715*.

WALPOLE (*Horace*), earl of Orford, was the youngest son of Sir Robert by his first wife, Catharine, daughter of Robert Shorter, esq., of Bybrook in Kent. He was born 1716; and was educated, first



at Eton, and afterwards at Cambridge. At Eton he formed an intimate acquaintance with the celebrated poet Gray; and they went together on the tour of Europe in 1739, 1740, and 1741. Unhappily they had a dispute in the course of their travels, which produced a separation. Mr. Walpole was nominated to represent the city of Norwich, when his father visited it July 3d, 1733, having acquired consequence, not only as the son of the minister, but as having attended the prince of Orange to England that year. He was chosen member for Collington, in Cornwall, in the parliament which met June 25th, 1741; was a second time in parliament as representative for Castle Rising, in Norfolk, in 1747; and for King's Lynn in 1754, and 1761; and, at the expiration of that parliament, he finally retired from the stage of politics, and confined himself wholly to literary pursuits. He held to his death the office of usher of his majesty's exchequer, comptroller of the pipe, and clerk of the esterats. Upon the death of his nephew, George, third earl of Orford, 1791, he succeeded to the title and estates; but that event made so little alteration in his mode of living, that we know not whether he ever took his seat in the house of peers. During almost the whole course of his life he was the victim of the gout, which at last reduced him to a cripple; but it never impaired his faculties; and, to the very moment of death, his understanding seemed to bid defiance to the shock of nature. He died at his house in Berkeley Square, in 1796, having just entered his eightieth year; and was interred in the family vault at Houghton, in a private manner, agreeable to his particular directions. His works were collected in 1798, and published in 5 vols. 4to. They resemble his conversation, being rather amusing than profound or instructive.

WALPOLE, a post town of Cheshire county, New Hampshire, on the Connecticut, opposite Westminster, with which it is connected by a bridge; twelve miles south of Charlestown, thirteen north-west of Keene, twenty north by east of Brattleborough, and sixty west by south of Concord. This is an excellent agricultural town. The principal village is delightfully situated on an elevated bank at a little distance from the river, and contains a Congregational meeting house, and a considerable collection of dwelling houses, a great part of which are large and elegant. On Cold River, three miles and a half north-east, there is another village of about twenty houses, containing a cotton manufactory and some mills. At Bellows Falls, in the north-west part of the township, there is another bridge across the Connecticut, in crossing which one has an interesting and sublime view of the falls.

WALSALL, a market town in Offlow hundred, Staffordshire, fifteen miles south of Stafford, and 116 north-west of London. Its families are employed in trade and manufactures, chiefly in those of buckles, bridle-bits, and various articles of hardware. The church is a spacious building, in the form of a cross, with a neat octagonal spire; and it has several meeting-houses for various classes of dissenters, and a good free grammar school. The town is incorporated under a mayor, recorder, twenty-four aldermen, a town clerk, and two sergeants at mace. The justices hold quarter sessions here at stated periods. Market on Tuesday. By a peculiar custom in this town, a certain quantity

of bread is given away to every person who will accept of it on the eve of the Epiphany.

WALSH (William), an English critic and poet, the son of Joseph Walsh, esq., of Abberley in Worcestershire, was born about 1660. He became commoner of Wadham College, Oxford, but left the university without taking a degree. His writings were printed among the works of the Minor Poets, in 1749. He was made a gentleman of the horse in queen Anne's reign; and died in 1708. He was the friend of Mr. Dryden and of Mr. Pope; the former of whom esteemed him the best critic then living; and Mr. Pope has celebrated his character in his *Essay on Criticism*.

WALSHAM, North, a market town and parish in Tunstead hundred, Norfolk, about five miles and a half from the sea, twelve north of Norwich, and 124 N. N. E. of London. It has a good parish church, several meeting-houses, and a free-school. The market cross was built by bishop Thurlby, in the time of Edward III. Market on Tuesday.

WALSINGHAM (Sir Francis), minister and secretary of state during the reign of queen Elizabeth, and one of the greatest politicians of his time, was descended from a noble and ancient family at Chislehurst. Having made great progress in his studies at Cambridge, he was twice sent ambassador to France, and at his return to England was employed in the most important affairs; became secretary of state, and was one of the commissioners for the trial of Mary queen of Scots. In 1587, the king of Spain having made vast preparations, Walsingham procured intelligence from Madrid, that the king had informed his council of his having despatched an express to Rome, with a letter written with his own hand to the pope, acquainting him with the true design of his preparations, and begging his blessing upon him; which for some reasons he could not disclose till the return of the courier. The secret being thus lodged with the pope, Walsingham, by means of a Venetian priest, whom he retained at Rome as a spy, got a copy of the original letter, which was stolen out of the pope's cabinet by a gentleman of the bedchamber, who took the key out of the pope's pocket while he slept. After this, by his dexterous management, he caused the Spaniards' bills to be protested at Genoa, which should have supplied them with money for their extraordinary preparations; and thus he happily retarded this formidable invasion for a whole year. In short, he spent his whole time and faculties in the service of queen Elizabeth; on which account she said, "That in diligence and sagacity he exceeded her expectations." This great man gave a remarkable proof at his death, which happened on the 6th of April 1590, how far he had preferred the public interest to his own, he being so poor, that, excepting his library, which was a very fine one, he had scarcely effects enough to defray the expense of his funeral. His principal works are, 1. *Memoirs and Instructions for the use of Ambassadors*, with his *Letters and Negotiations*. 2. *Political Memoirs*.

WALSINGHAM (Thomas), an English Benedictine monk of the monastery of St. Alban's, about 1440. He applied himself to the history and antiquities of his country, in quality of historiographer to the king; and composed the *History of King Henry VI.*, with other works.

WALTERS (John), M. A., a learned Welsh di



vine of the established church, educated at Oxford, where he graduated; and became rector of Laud chau in Glamorganshire. He compiled a valuable English and Welsh Lexicon, 1 vol. 4to. 1794. He also published some sermons; and died in 1797.

WALTHAM, a post town of Middlesex county, Massachusetts, on the north side of Charles River, which separates it from Newton; ten miles west of Boston, and thirty-four east by north of Worcester. It is a pleasant town, and contains one woollen and two cotton manufactories, and a paper mill.

WALTHAM-ABBEY, a market-town in Waltham hundred, Essex, twelve miles and a quarter north by east of London, on the river Lea. The town is irregularly built, and of great antiquity, deriving its name from its once stately abbey, erected by Harold, son of earl Godwin. Henry II. afterwards changed the foundation from a dean and eleven secular black canons, to an abbot and sixteen Augustine monks. The succeeding monarchs granted Waltham-Abbey many privileges, and its abbot sat in parliament. The present church appears to be only a part of the ancient structure. Adjoining the south side is a school room, anciently a chapel dedicated to our lady; beneath which is a charnel-house: some ruinous walls, and part of a gateway of the abbey, still remain. The abbey-house was entirely taken down in 1770. Government have here established some powder mills; here are also some trifling manufactures of pins, and for printing linens. Market on Tuesday.

WALTHERIA, in botany, a genus of plants in the class monodelphia, and order triandria; and in the natural system arranged under the thirty-seventh order, columniferae. There is only one pistillum, and the capsule is unilocular, bivalved, and monospermous. There are three species, none of which are natives of Britain.

WALTON (Bryan), bishop of Chester, a learned English divine, who gained great reputation by his edition of the Polyglot bible (see BIBLE), with his Prolegomena in the beginning; which is more exact, says father Simeon, than any other which had been published on that subject. He died in 1661.

WALTON (Isaac, or as he wrote it Izaak), a learned biographer born at Stafford. He became a merchant in the Royal Bourse, Cornhill, now Royal Exchange, London, where he made a fortune in a shop only five feet and a half long and five wide. Being fond of fishing, he wrote a work entitled, *The Complete Angler, or Contemplative Man's Recreation*, 8vo., which has been ever since esteemed a standard work on that art. Mr. J. Hawkins published an improved edition of it. He also wrote the *Lives of Drs. Donne, Herbert, Hooker, Wotton, and bishop Sanderson*; the last of which is highly praised by Dr. Johnson. The Lea was the scene of his angling. He died at Winchester, during the great frost, December 15th, 1683. See STEVENS, William.

WALTRON, n. s. Goth. *hualtrun*. The sea-horse.

The morse, or *waltron*, is called the sea-horse.

Woodward.

WALURU, a town of the south of India, province of Mysore, defended by a citadel. It has a manufacture of arrack, cotton cloth, and blankets; and has a weekly market. A Hindoo chieftain, who formerly held this town and the adjoining territory, is allowed to inhabit the citadel, and has

pension from the Mysore government. It is situated a few miles from Bangalore.

WAM'BLE, v. n. Belg. *wemmelen*. To roll with nausea and sickness. Used of the stomach.

A covetous man deliberated betwixt the qualms of a *wambling* stomach and an unsettled mind. *L'Estrange*.

WAMPUM, the money used by the North American Indians. It is much used in all their treaties as a symbol of friendship. It is made of a shell of a particular species of *Venus*.

WAN, adj. Sax. *wann*; Goth. and Swed. *wan*; Wel. *gwan*, weakly. Pale, as with sickness; languid of look.

Sad to view his visage pale and *wane*,  
Who erst in flowers of freshest youth was clad. *Spens.*

Is it not monstrous that this player here,  
But in a fiction, in a dream of passion,  
Could force his soul so to his own conceit,  
That, from her working, all his visage *wanned*?

*Shakspeare.*

Why so pale and *wan*, fond lover?

Pry'thee, why so pale?

Will, when looking well can't move her,

Looking ill prevail?

*Suchling.*

Their course through thickest constellations held,  
Spreading their bane; the blasted stars looked *wan*.

*Milton.*

How changed from him,  
Companion of my arms! how *wan*, how dim,  
How faded all thy glories!

*Dryden.*

WAND, n. s. Dan. *vaand*; Goth. and Swed. *wand*. A long slender rod; an ensign of authority.

Though he had both spurs and *wand*, they seemed rather marks of sovereignty, than instruments of punishment.

*Sidney.*

The skilful shepherd peeled me certain *wands*.

*Shakspeare.*

His spear, to equal which the tallest pine  
Hewn on Norwegian hills, to be the mast  
Of some great admiral, were but a *wand*.

*Milton.*

Nay, lady, sit; if I but wave this *wand*,  
Your nerves are all chained up in alabaster.

*Id.*

Picus bore a buckler in his hand;

His other waved a long divining *wand*.

*Dryden.*

A child runs away laughing with good smart blows  
of a *wand* on his back, who would have cried for an unkind word.

*Locke on Education.*

WAN'DER, v. n. & v. a. } Saxon *panþuan*;

WAN'DERER, n. s. }

Swed. *wandra*. To  
rove; ramble here and

there: to tread over. It has always a sense either evil or slight. The noun substantives correspond.

O let me not *wanaer* from thy commandments.

*Psal. cxix.*

They *wanderers* about in sheeps' and goats' skins.

*Hebrews xi.*

I will go lose myself,  
And *wander* up and down to view the city. *Shaksp.*  
Nor for my peace will I go far,

As *wanderers* that still do roam;

But make my strengths, such as they are,

Here in my bosom, and at home. *Ben Jonson.*

If any man's eagerness of glory has made him over-  
see the way to it, let him now recover his *wanderings*.

*Decay of Piety.*

Here should my wonder dwell, and here my praise;  
But my fixt thoughts my *wandering* eye betrays.

*Denham.*

They give the reins to *wandering* thoughts,  
Till, by their own perplexities involved,  
They ravel more.

*Milton.*

A hundred years they *wander* on the shore. *Dryden.*  
A proper remedy for this *wandering* of thoughts  
would do great service to the stultious. *Lucan.*



The whole people is a race of such merchants as are *wanderers* by profession, and at the same time are in all places incapable of lands or offices. *Spectator.*

Taste, that eternal *wanderer*, which flies  
From head to ears, and now from ears to eyes. *Pope.*

When a right knowledge of ourselves enters into our minds it makes as great a change in all our thoughts and apprehensions, as when we awake from the *wanderings* of a dream. *Law.*

WANDIWASH, a town and fortress of the south of India, province of the Carnatic. In the month of September 1759 the British troops, in an attack on this place, were repulsed with great slaughter; but in November following it was taken by Sir Eyre Coote with scarcely any loss. In January 1760 a decisive battle was fought in the vicinity of this town between the British and French, with their respective allies, in which the latter were totally defeated. Wandiwash will also be recorded in history for the surprising efforts of a young officer in the East India Company's service, lieutenant Flint, who, in the year 1780, having, by a bold stratagem, got possession of the place from one of the nabob's governors, who had agreed to surrender it to Hyder Aly, successfully defended it for six months against the whole Mysorean army. This fortress was demolished by order of general Stuart in 1783. The town of Wandiwash, and the adjoining territory, is now included in the Arcot collectorship. Long. 79° 40' E., lat. 12° 29' N.

WANE, *v. n. & n. s.* Sax. *panian*; Goth. and Swed. *wana*. To grow less; decrease; decline: diminutive. Applied particularly to the moon, and opposed to wax.

A lady far more beautiful  
Than any woman in this *waning* age. *Shakespeare.*  
The sowing at the *wane* of the moon is thought to make the corn sound. *Bacon.*

Nothing more jealous than a favourite, towards the *waning* time, and suspect of satiety. *Wotton.*

The husbandman, in sowing and setting, upon good reason observes the waxing and *waning* of the moon. *Hakewill.*

I'm *waning* in his favour, yet I love him. *Dryden.*  
Land and trade ever will wax and *wane* together. *Child.*

You're cast upon an age in which the church is in its *wane*. *South.*

Her *waning* form no longer shall incite  
Envy in woman, or desire in man. *Rowe's Jane Shore.*

*Waning* moons their settled periods keep,  
To swell the billows and ferment the deep. *Addison.*

This is fair Diana's case;  
For all astrologers maintain,  
Each night a bit drops off her face,  
When mortals say she's in her *wane*. *Swift.*

WANGARA, a large country in the heart of Central Africa. The Arabian travellers in the twelfth century represent it as the grand source of African wealth: Edrisi as entirely traversed and intersected by branches of the Nile of the Negroes, or modern Niger. During the season of the rains, which rise to their greatest height in August, the whole country was overflowed and laid under water. In September the waters began to subside, and, after retiring, left the whole country impregnated with gold dust. The natives then hastened, and, by slight digging, obtained an ample portion of this precious metal, which they disposed of to merchants, who hastened thither from the remotest extremities of the continent. The principal towns of Wangara were Semegda and Reghebil, situated

on the shore of extensive and beautiful lakes. The Arabian writers represent the rivers of Wangara, and indeed the Nile of the Negroes in general, as flowing from west to east; but as this assertion is contradicted by the observations of Park, relative to the course of the Joliba through Bambarra, and by other authorities, little credit is now attached to it.

WANLEY (Nathaniel), an English divine, educated at Trinity College, Cambridge. He became vicar of Trinity Church, Coventry, where he died in 1690. He published a curious book, entitled *The Wonders of the Little World, or the History of Man*, in folio.

WANLEY (Humphrey), son of the above, was born in 1672, and educated at Edmund Hall, Oxford. He became secretary to the Society for Propagating Christian Knowledge, and librarian to the earl of Oxford. He was deeply skilled in bibliography, and the northern languages: he compiled a Catalogue of Saxon MSS. for Dr. Hickeys's *Thesaurus*. He died in 1726. He acquired an uncommon faculty of distinguishing the dates of ancient MSS.

WANSLEB (John Michael), a learned German orientalist, born at Erfurt in Thuringia in 1635. He learned the oriental languages of Ludolph, who employed him to publish his *Æthiopic Dictionary*, at London, in 1661, in which Wansleb inserted many articles of his own, which Ludolph complained of. He also assisted Dr. Castell in his *Lexicon Hieptaglotton*. Ernest duke of Saxe-Gotha engaged him to travel to Abyssinia, but he went no farther than Cairo. He was dissipated; yet he was employed by M. Colbert to collect MSS. and medals for Louis XIV's library. He also published an account of the State of Egypt, in Italian, 1671, 12mo. He died in 1679.

WANT, *v. a. v. n., & n. s.* Saxon *pana*; Goth. and Swed. *wanta*. To need: be deficient in something; to be without something fit or necessary; fall short of: hence to wish; long; desire: to be wanted; fail; be deficient: want is need, general or particular; deficiency; poverty.

*Want* no money, Sir John; you shall *want* none. *Shakespeare.*

Down I come, like glistering Phaeton,  
*Wanting* the manage of unruly jades. *Id.*

Finds wealth where 'tis, bestows it where it *wants*,  
Cities in deserts, woods in cities plants. *Denham.*

Nor think, though men were none,  
That heaven would *want* spectators, God *want* praise. *Milton.*

By descending from the thrones above,  
Those happy places thou hast deigned a while  
To *want*, and honour these. *Id. Paradise Lost.*

It infers the good  
By thee communicated, and our *want*. *Milton.*

How loth I am to have recourse to rites  
So full of horror, that I once rejoice  
I *want* the use of sight. *Dryden and Lee's Ædipus.*

Whatever fortune, good or bad, betide,  
No time shall find me *wanting* to my truth. *Dryden.*

Smells do most of them *want* names. *Locke.*  
Parents should distinguish between the *wants* of fancy, and those of nature. *Id.*

We have the means in our hands, and nothing but the application of them is *wanting*. *Addison.*

Religion will never be without enemies, nor those enemies be *wanting* in endeavours to expose it to the contempt of mankind. *Rogers.*

As in bodies, thus in souls, we find  
What *wants* in blood and spirits, swelled with wind. *Pope.*



Nothing is so hard for those who abound in riches, as to conceive how others can be in want. *Swift.*

Here learn the great unreal wants to feign, *Savage.*

Unpleasing truths here mortify the vain. *Richardson.*

The unhappy never want enemies. *Richardson.*

Wants of all kinds are made to frame a plea, *Young.*

One learns to lisp, another not to see. *Young.*

WANTON, *adj.*, *n. s.*, & *v. n.* } Derived by

WANTONLY, *adv.* } Minshieu from

WANTONNESS, *n. s.* } want one, a

man or woman that wants a companion. This etymology, however odd, Junius silently adopts. Skinner, who had more acuteness, cannot forbear to doubt it, but offers nothing better. Eren Mr. Thomson says 'Goth. and Sax. *wan* is a privative and *tion*, conduct, restraint.' Lascivious; libidinous; lustful: a loose lascivious person; a strumpet: to wanton is to play the wanton or harlot: the adverb and noun substantive correspond.

Thou art froward by nature, enemy to peace,

Lascivious, wanton; more than well becoms

A man of thy profession. *Shakespeare.*

To lip a wanton in a secure couch,

And to suppose her chaste. *Id.*

The spirit of wantonness is scared out of him. *Id.*

An old wanton will be doating upon women, when

he can scarce see without spectacles. *South.*

Peace, my wantons; he will do

More than you can aim unto. *Ben Jonson.*

Into what sundry gyres her wondered self she throws,

And oft inisles the shore, as wantonly she flows. *Drayton.*

The tumults threatened to abuse all acts of grace,

and turn them into wantonness. *King Charles.*

Oh! I heard him wanton in his praise;

Speak things of him might charm the ears. *Otway.*

Enticed to do him wanton rites. *Milton.*

Nature here

Wantoned as in her prime, and played at will

Her virgin fancies. *Id.*

Wantonness and pride

Raise out of friendship hostile deeds in peace. *Id.*

Men grown wanton by prosperity

Studied new arts of luxury and ease. *Roscommon.*

O ye muses! deign your blest retreat,

Where Horace wantons at your spring,

And Pindar sweeps a bolder string. *Fenton.*

Thou dost but try how far I can forbear,

Nor art that monster which thou wouldst appear;

But do not wantonly my passion move,

I pardon nothing that relates to love. *Dryden.*

How does your tongue grow wanton in her praise!

*Addison.*

He from his guards and midnight tent

Disguised o'er hills and valleys went

To wanton with the sprightly dame,

And in his pleasure lost his fame. *Prior.*

Love, raised on beauty, will like that decay;

Our hearts may bear its slender chain a day:

As flowery bands in wantonness are worn,

A morning's pleasure, and at evening torn. *Pope.*

WAPATTOO ISLAND, an island of North America, formed by the junction of the Multnomah with the Columbia, twenty miles long and ten broad. The land is high and extremely fertile, and on most parts is supplied with a heavy growth of cottonwood, ash, the large leafed ash, and sweet willow, the black alder, common to the coast, having disappeared. But the chief wealth of this island consists of the numerous ponds in the interior, abounding with the common arrowroot (*sagittaria sagittifolia*), to the root of which is attached a bulb growing beneath it in the mud. This bulb,

to which the Indians give the name of wapattoc, is the great article of food, and almost the staple article of commerce on the Columbia.

WANTY, *n. s.* Perhaps wain-tie. A broad girth of leather, by which the load is bound upon a horse.

A panel and wanty, pack-saddle and ped,

With line to fetch litter. *Tusser.*

WAPENTAKE, *n. s.* Sax. *wæpun*, and *take*;

barb. Lat. *wapentagium*. See below.

Hundred signifeth a hundred pledges, which were under the command and assurance of their alderman; which, as I suppose, was also called a wapentake; so named, of touching the weapon or spear of their alderman, and swearing to follow him faithfully, and serve their prince truly. But others think that a wapentake was ten hundreds or boroughs. *Spenser.*

Wapentake is all one with what we call a hundred: as, upon a meeting for that purpose, they touched each other's weapons, in token of their fidelity and allegiance. *Cowel.*

WAPENTAKE is the same with hundred; especially used in the north countries beyond the Trent. The word seems to be of Danish original, and to be so called for this reason: When first this kingdom, or part thereof, was divided into wapentakes, he who was the chief of the wapentake or hundred, and whom we now call a high constable, as soon as he entered upon his office, appeared in a field on a certain day on horseback with a pike in his hand, and all the chief men of the hundred met him there with their lances, and touched his pike; which was a sign that they were firmly united to each other by the touching their weapons. But Sir Thomas Smith says, that anciently musters were made of the armor and weapons of the several inhabitants of every wapentake; and, from those that could not find sufficient pledges for their good appearing, their weapons were taken away and given to others; whence he derives the word.

WAPPING, a parish in Ossulton hundred, Middlesex, on the north bank of the river Thames eastward of the metropolis, and reckoned one of the out-parishes thereof. Its inhabitants are employed in trade, mostly attendant on the shipping of the port of London; but many houses have been demolished since the census of 1801, in making the London Docks. These docks are a great improvement in the angle formed here by the Thames; that called St. George's Dock being capable of holding 200 sail of shipping. Shadwell Docks, adjoining, will contain fifty sail. The entrance from the Thames is by three basins, sufficient to contain an immense quantity of small craft; and the inlets from the Thames into the basins are at the Old Hermitage, Old Wapping, and Old Shadwell Docks. At the eastern extremity are stupendous warehouses, belonging to the Custom House, although rented of the Dock Company, for warehousing tobacco, and the cellars are appropriated to housing of wines; there are various ranges of warehouses for general merchandize. These docks belong to a public company, having a capital of £1,200,000. The church, dedicated to St. John, is a plain building, erected in 1790; and is a rectory, under the patronage of Brazen-nose College, Oxford.

WAR, *n. s.*, *v. n.*, & *v. a.* } Sax. *þær*, þenne;

WAR'FARE, *n. s.* & *v. n.* } Teutonic and Belgic

WAR'LIKE, *adj.* } *werre*; Fr. *guerre*,

WAR'NONE. } Ital. and Span. *guerra*

ra 'The exercise of violence under sovereign com



mand against withstanders; force, authority, and resistance, being the essential parts thereof.—Raleigh. Hostility; arms; the profession of arms: to make war: to make war upon: warfare is the state of war; military service: to lead to military life: warlike, hostile; like war: war-worn, worn with war.

He teacheth my hands to war. 2 Sam. xxii.

This charge I commit unto thee, son Timothy, that thou by them mightest war a good warfare.

1 Timothy i. 18.

She using so strange, and yet so well succeeding a temper, made her people by peace warlike. Sidney.

And then long time before great Nimrod was, The first the world with sword and fire warred. Spens.

Their gesture sad,

Invest in lank lean cheeks and warworn coats, Presented them unto the gazing moon So many horrid ghosts. Shakespeare.

Why should I war without the walls of Troy, That find such cruel battle here within? Id.

Old Siward with ten thousand warlike men, All ready at appoint, was setting forth. Id.

On, you noblest English,

Whose blood is fetcht from fathers of war proof. Id.

When a warlike state grows soft and effeminate, they may be sure of a war. Bacon.

He limited his forces to proceed in aid of the Britons, but in no wise to war upon the French. Id.

That was the only amulet, in that credulous warfaring age, to escape dangers in battles. Camden.

To them the same was rendered, to the end, To war the Scot, and borders to defend. Daniel.

On the embattled ranks the waves return, And overwhelm the war. Milton.

The great archangel from his warlike toil Surceased. Id.

His next design

Was all the Theban race in arms to join, And war on Theseus. Dryden.

To the island of Delos, by being reckoned a sacred place, nations warring with one another resorted with their goods, and traded as in a neutral country. Arbuthnot.

O imprudent Gauls,

Relying on false hopes, thus to incense The warlike English. Philips.

The Scripture has directed us to refer these miscarriages in our Christian warfare to the power of three enemies. Rogers.

WAR is a great evil; but it is often inevitable, and often necessary. If he who first reduced to rules the art of destroying his fellow creatures had no end in view out to gratify the passions of princes, he was a monster, whom it would have been a duty to have smothered at his birth: but if his intention was the defence of persecuted virtue, or the punishment of successful wickedness, to curb ambition, or to oppose the unjust claims of superior power, mankind ought to erect altars to his memory. War, in the last case, is the most necessary and useful of all the sciences: the various kinds of knowledge which ought to furnish the mind of a soldier are not without great difficulty to be attained. Of most other sciences the principles are fixed, or at least they may be ascertained by the assistance of experience; there needs nothing but diligence to learn them, or a particular turn of mind to practise them. Philosophy, mathematics, architecture, and many others, are all founded upon invariable combinations and conclusions. Every man, even of a narrow understanding, may remember rules, apply them properly, and sometimes draw just consequences from them: but the science of war branches out into so many

particulars; it takes in so many different parts, there are so many reflections necessary to be made, so many circumstances and cases to be brought together; that it is only by a continual application, grounded upon the love of his duty, and an inclination to his profession, that any man can attain it. To march an army in every sort of country, whether open, woody, or mountainous; to know how to form a camp in all those countries, with which the general must be thoroughly acquainted in order to do it with security; to make a proper disposition for a battle, whether with a view to the posture of the enemy, or to the situation of the country; to foresee events which depend in a manner upon chance; to be capable of making a good retreat on proper occasions; to direct the forages without fatiguing or exposing the troops; to send out detachments with precaution; to conduct the convoys in safety; to know how to canton an army; to establish magazines in places both safe and within reach of the army, so that it shall never be in want of subsistence—these are the great ends of the military science. It is commonly thought sufficient for a military man to know how to obey; and it is also supposed that the success of a day cannot be dubious, if a general joins the confidence of the soldiers to personal courage, a cool head, and the knowledge of the country. It is true that, in cases of perplexity, many generals have in a great measure owed to their own capacity, and the confidence their soldiers have reposed in them, the advantages they have gained over the enemy; and confidence will always be reposed by the soldiers in that general in whom they perceive coolness united with courage.

At the battle of Cannæ, when Gisco seemed to be much astonished at the superiority of the enemy's number, Hannibal answered him coolly, 'There is, Gisco, a thing still more surprising, of which you take no notice.' Gisco asking him what it was, 'It is,' replied Hannibal, 'that in all that great crowd, there is not one man whose name is Gisco.' Plutarch observes, that this coolness of Hannibal greatly animated the Carthaginians, who could not imagine that their general would joke at so important a time, without being certain of overcoming his enemies. Although bravery and courage are the most essential qualifications of a subordinate officer, yet he should not be deficient in those which are required in a general, and which have been already mentioned; obedience to the orders delivered to him is no longer a virtue than whilst he comprehends and knows the intention of them. War, says a celebrated author, is a business which, like all others, must be learned; it supposes some qualities to be born with us, and demands others which are to be acquired: but, since all these qualities must have the original source in genius, a man who proposes war for his profession, should never engage in it without having consulted his natural bent, or without knowing the particular turn and power of his mind. Ability, whether in a general or an officer, is the effect of his genius, quickened by a natural liking to his business. A quick eye, which is of great importance to a soldier, is natural to some, and in them it is the effect of genius; others acquire it by study or experience; he who knows how to command himself, and has courage enough to keep himself cool on the most urgent occasions, has the readiest and quickest eye. A quick, hot-



headed man, however brave, sees nothing; or if he does, it is confusedly, and generally too late. It is this quick eye which enables a general to judge of an advantageous post, of a manœuvre to be made, and of a good disposition for the troops, whether with respect to that of the enemy, or to the situation and nature of the country. The quick eye is no other than that penetrating genius which lets nothing escape it. A general who knows how to unite this quality with perpetual coolness never is in want of expedients; he will see how these events, which to any other would be the presage of his own defeat, may end in the overthrow of his enemies. The choice of the general officers depends upon this genius, which discovers every thing; they ought to be the right hand of the general, and as capable of commanding the army as himself. Whatever good dispositions a general may make, they must prove ineffectual if not seconded by the general officers under his command; he cannot be every where, neither can he foresee all exigencies that may arise. He is obliged to give only general orders; it is therefore the business of those who command under him to know how to take the advantage of a wrong movement of the enemy; to take upon them to attack, or sustain the troops which are engaged; and, as circumstances vary, to make them advance towards the enemy, either to keep him back or to attack him. But the qualities already mentioned would be useless, if order and discipline were not severely observed: the most numerous and best composed army would soon become little else than a body of rangers, who, being only united by the hope of booty, would separate as soon as that motive ceased; and, trusting each to his own head, or indulging his own humor, would be cut in pieces party by party: so that if the general does not keep up subordination (the soul and strength of discipline), his army will be nothing more than a troop of Tartars acting more from the hope of plunder than the desire of glory. What art and what genius are there not requisite to maintain this subordination? Too much severity disgusts the soldier, and renders him mutinous; too much indulgence sinks him into indolence, and makes him neglect his duty; licentiousness causes that subordination to seem burdensome, which should never in any degree be given up: he loses that respect, and often that confidence, which he should have with regard to his officer: and indulgence often makes a well disciplined body become a set of sluggards, who march against their will, and who, on the most pressing emergencies, think only on their own safety. Besides these qualities, which are essential to a general, and which all who would attain that rank ought of course to have, there are still many others necessary to make a great man. A general who would merit the title of a hero, ought to unite in himself all civil, military, and political excellence. It is by this that he will make war with success: nothing will escape him; he will know without difficulty the genius of every country, and of the nations which compose the enemy's army, the abilities of the generals who command, and the nature of the troops under them; he knows that he may venture a motion with some troops that he would not dare to attempt with others that are equally brave. One nation is vehement, fiery, and formidable on the first onset; another is not so hasty, but of more perseverance: with the former, a single instant de-

termines success; with the latter the action is not so rapid, but the event is less doubtful. No man is born a general, although he brings into the world with him the seeds of those virtues which make a great man: Cæsar, Spinola, Turenne, the great Condé, and some others, showed, even in their earliest years, such qualities as ranked them above other men; they earned within them the principles of those great virtues which they drew forth to action by profound study, and which they brought to perfection by practice: those who came after them, with perhaps fewer natural talents, have by study rendered themselves worthy of being compared to them. Cæsar and all conquerors had this advantage, that they were able to make their own opportunities, and always acted by their own choice. A man may be a good general without being a Marlborough or a Turenne: such geniuses are scarcely seen once in an age; but the more they are raised above the rest of mankind, the more they ought to excite emulation. It is by endeavouring to surpass the intellects of the second rate: it is by striving to equal the most sublime, that the imitation of them is to be attained. This passion in a soldier is neither pride nor presumption; it is virtue: and it is by this only that he can hope to be serviceable to the state, and add to the glory of his king and country. How much soever the honor of commanding armies may be sought after, it degrades him who is not worthy of it; this rank, so much desired, borders on the two extremes of glory and ignominy. A military man who labors to make himself capable of commanding is not to be blamed; his ambition is noble: by studying the art of commanding he learns that of obeying and of executing. But it is astonishing in the highest degree to see soldiers thinking only of preferment, and neglecting the study of their business. It is perhaps less surprising to see others, without having been tried, proposing to themselves to command in chief; because such attempts suppose in the projector an absurd temerity, founded on a profound ignorance of the talents he ought to have, and the virtues which he has not. Such boldness is the character of a man whose mind is too narrow to perceive his danger. We should rather approve the timidity that suffers itself to be dejected by terror, since it shows at least that he knows to what hazards he is exposed; both one and the other are blameable: modesty is the only proper quality of a soldier; it gives splendor to virtue, it argues diffidence of himself, and desire of arriving at perfection. The title of general would be less tempting if proper attention was paid to the qualities it requires, and the duties it imposes; it would then appear a very honorable but painful burden. The most firm and intrepid genius might be discouraged merely by thinking that on the conduct of a general depends the fate of the state, the glory of his prince's arms, his own reputation, and the lives of his soldiers. But yet the reward that follows such irksome labors ought to animate men to undertake them. Obstacles, however numerous they may be, are not insurmountable, since so many great men have got the better of them: difficulties should stir up a soldier's emulation, but should never terrify him; he should endeavour to copy such great originals, though he should not be able to equal them. From these observations on the difficulty of acquiring a sufficient degree of skill in this important science, our readers, we suppose, will agree with us, that it



would be to little purpose, and tend nothing either to the instruction or edification, either of our military or learned readers, were we to presume to lay down a system of rules for military operations to be followed by a general. The circumstances of time, place, and opportunity of advantage, that occur in one campaign, are so various and often opposite to those that occur in any other, that measures very proper in one case might occasion the capture or destruction of a whole army in another. We will not, therefore, attempt to lay down any rules upon the subject, as the most courageous and best experienced generals must always act according to the contingent circumstances that occur in the countries through which they lead their armies.

We are unable, by want of space, to attempt to treat in this place of the art of war—an article to that effect, to be of any service, should rather occupy a volume than a few pages. But we present a connected view of the periods and durations of the most remarkable wars in which this country has been engaged since the war with Scotland, 1068.

- Peace with { Scotland, 1113.
- { France, 1113.
- War with France, 1116.
- Peace with { ditto, 1118.
- { Scotland, 1139.
- War with France, 1161.
- Peace with ditto, 1186.
- War again with France, with success, 1194.
- Peace with ditto, 1195.
- Civil war { renewed, 1215—ended, 1216.
- { with France, 1224—ended, 1234.
- { 1262—ended, 1267.
- { with France, 1294.
- { with Scotland, 1296.
- Peace { with France, 1299.
- { with Scotland, 1323.
- War { again with Scotland, 1327.
- { ended, 1328.
- { again with Scotland, 1333.
- { with France, 1339.
- Peace with France, May 8th, 1360.
- War { with France, 1368.
- { civil, 1400.
- { with Scotland, 1400.
- Peace with France, May 31st, 1420.
- War { with France, 1422.
- { civil, between York and Lancaster.
- { 1452.
- Peace with France, October, 1471.
- War { civil, 1486.
- { with France, October 6th, 1492.
- Peace { with ditto, November 3d, 1492.
- { with Scotland, 1502.
- War { with France, February 4th, 1512.
- { with Scotland, 1513.
- Peace with France, August 7th, 1514.
- War with { ditto, 1522.
- { Scotland, 1522.
- Peace with { France, 1527.
- { Scotland, 1542.
- War with Scotland directly after.
- Peace with France and Scotland, June 7th, 1546.
- War with { Scotland, 1547.
- { France, 1549.
- Peace with both, March 6th, 1550.
- War { civil, 1553.
- { with France, June 7th, 1557.
- { with Scotland, 1557.

- Peace with { France, April 2d, 1559.
- { Scotland, 1560.
- War { with France { 1562.
- Peace {               { 1564.
- War with { Scotland, 1570.
- { Spain, 1588.
- Peace with Spain, August 18th, 1604.
- War with { Spain, 1624.
- { France, 1627.
- Peace with Spain and France, April 14th, 1629.
- War { civil, 1642.
- { with the Dutch, 1651.
- Peace with the Dutch, April 5th, 1654.
- War with Spain, 1655.
- Peace with Spain, September 10th, 1660.
- War with { France, January 26th, 1666.
- { Denmark, October 19th, 1666.
- Peace with the French, Danes, and Dutch, August 24th, 1667.
- Peace with Spain, February 13th, 1668.
- War with the Algerines, September 6th, 1669.
- Peace with ditto, November 19th, 1671.
- War with the Dutch, March 1672.
- Peace with ditto, February 28th, 1674.
- War with France, May 7th, 1689.
- Peace, general, of Rhyswick, September 20th, 1697.
- War with France, May 4th, 1702.
- Peace of Utrecht, March 13th, 1713.
- War with Spain, December 1718.
- Peace with ditto, 1721.
- { Spain, 1739.
- War with { France, March 31st, 1744.
- { France, 1756.
- { Spain, January 4th, 1762.
- Peace with France and Spain, February 10th, 1763.
- War with the Caribbs of St. Vincent in 1773.
- War { civil, in America, commenced July 14th, 1774.
- { with France, February 6th, 1778.
- { with Spain, April 17th, 1780.
- { with Holland, 1780.
- ce with { France, {
- { Spain, { September 3d, 1783.
- { Holland, {
- { America, {
- War with France by the English, Prussians, Austrians, and other German powers, in 1793.
- Peace between Prussia and the French Republic, 1795.
- Peace between Spain and the French Republic, 1795.
- Peace between the French and the Sardinians in 1796.
- Peace between the French and the Austrians in 1797.
- War between the British and Tippoo Saib, in India, in 1797.
- War with the French republic by the Austrians, Russians, Neapolitans, &c., 1798.
- War with the Turks, and the invasion of Egypt, in 1798.
- Peace between the French and the Russians in 1799.
- Peace between the French and Austrians in 1800.
- Preliminaries of peace commenced between the French and the Ottoman empire in consequence of the reduction of Egypt by the British forces in 1801.
- Preliminaries of peace between France and Great Britain, &c., 1801.

Peace between France and England, 1802.

War with France, 1803; terminated in June 1815.

**WARADEIN**, GREAT, or Nagy Varad, a fortified town of Hungary, on the Koresch, the see of a Catholic archbishop, and a Greek bishop. The environs being marshy, the air is thick and foggy. The cathedral, after lying many years in ruins, was rebuilt in 1778, on an elegant plan, and the archbishop's palace is a beautiful edifice. Here are several Catholic convents and schools. The population of the town are employed partly in manufactures and trade. At a little distance is New Warasdin, properly a suburb of the place we are describing; and in the neighbourhood are four warm mineral springs. In the Turkish wars in Hungary this was an important military post, which was several times taken. Population 7000. Thirty-five miles S. S. E. of Debreczin, and 132 east by south of Pest.

**WARASDIN**, a county of the Austrian states, in Croatia, having Styria and Illyria on the west, and the county of Agram on the east. Its area is about 720 square miles; its population, about 134,000, partly Catholics and partly of the Greek Church. The river Drave forms the northern boundary.

**WARASDIN**, THE GENERALATE OF, a district of Croatia, adjoining to Slavonia, and separated from Hungary only by the Drave. More extensive, but less populous, than the county of the same name, this district contains 1440 square miles, with only 108,000 inhabitants. The capital is a town of this name. Thirty-eight miles N. N. E. of Agram, and 132 south of Vienna.

**WARBECK** (Peter, or Perkin), a pretender to the crown of England under Henry VII. See ENGLAND.

**WARBLE**, *v. a. & v. n.* } Old Teut. *werben*,  
**WARBLER**, *n. s.* } of barb. Latin *vibrillo*,  
 from *vibro*. To quaver any sound; cause to quaver: to be quavered; to sing: a warbler is a singer; one that warbles.

A plaining song plain singing voice requires,  
 For warbling notes from inward cheering flow. *Sidney.*

There birds resort, and in their kind thy praise  
 Among the branches chant in warbling lays. *Wotton.*

Fountains, and ye that warble as ye flow  
 Melodious murmurs, warbling tune his praise. *Milton.*

She can thaw the numbing spell,  
 If she be right invoked with warbled song. *Id.*

Such strains ne'er warble in the linnet's throat. *Gay.*

Hark! on every bough,  
 In lulling strains, the feathered warblers woo. *Tickell.*

Whilst warbling to the varied strain advance  
 Two sprightly youths to form the bounding dance.

*Pope.*

**WARBURTON** (William), bishop of Gloucester, who has been justly styled *vir magnus*, acer, memorabilis, was descended from an ancient and considerable family in Cheshire. His grandfather distinguished himself in the civil wars of the seventeenth century, in the royal party. He had three sons; the second of whom, George, being bred to the law, practised as an attorney at Newark in that county. William, the subject of this memoir, and the second son of Mr. George Warburton, was born at Newark, December 24th, 1698. He was first put to school there under a Mr. Twells, but had the chief part of his education at Okeham in Rutlandshire, where he continued till the beginning of 1714, when, his cousin being made head master of the school at Newark, he returned to his

native place, and was for a very short time under the care of that learned and respectable relation. In April that year he was put out clerk to Mr. Kirke, an eminent attorney of Great Markham in Nottinghamshire; and continued with that gentleman till 1719. He then returned to his family at Newark. He had always expressed a strong inclination to take orders; and on the 22d of December 1723 he was ordained deacon, and priest March 1st, 1727. In 1728 he was presented by Sir Robert Sutton to the rectory of Brand Broughton; where he wrote all the great works which will carry his fame down to posterity. In 1736 he published *The Alliance between Church and State; or the Necessity and Equity of an Established Religion and a Test Law*; demonstrated from the Essence and End of Civil Society, upon the Fundamental Principles of the Law of Nature and Nations. In 1739 he published the first volume of *The Divine Legation of Moses demonstrated on the Principles of a Religious Deist, from the Omission of the Doctrine of a Future State of Rewards and Punishments in the Jewish Dispensation*. In 1737 an intermitting fever had nearly proved fatal to him, but it was relieved by a plentiful use of the bark. Mr. Warburton's merit had now attracted the notice of the heir apparent, in whose service we find him in 1738, when he published *Faith working by Charity to Christian Edification*, a sermon. His next work was *A Vindication of Mr. Pope's Essay on Man*, by the author of the *Divine Legation*. Towards the end of 1739 Mr. Warburton published a new and improved edition of the first volume of the *Divine Legation*; and in May, 1741, appeared the second part, which completed the argument, though not the entire plan of the work. In summer 1741 Mr. Pope and Mr. Warburton, in a country ramble, took Oxford in their way. The university was naturally pleased at the arrival of two such strangers, and seemed desirous of enrolling their names among their graduates. The degree of D. D. was intended for the divine, and that of LL. D. for the poet: but intrigue and envy defeated this scheme, to the eternal disgrace of the university. After this Mr. Pope introduced and warmly recommended Mr. Warburton to most of his friends, and among others to Mr. Murray, afterwards earl of Mansfield, and Ralph Allen, esq., of Prior Park. In consequence of this he was at Bath in 1742; where he printed a sermon preached at the abbey church on the 24th of October, for the benefit of Mr. Allen's favorite charity, the General Hospital or Infirmary. In this year also he printed a Dissertation on the origin of books of chivalry, at the end of *Javis's Preface to a translation of Don Quixote*. In 1742 Mr. Warburton published *A Critical and Philosophical Commentary on Mr. Pope's Essay on Man*. In which is contained a Vindication of the said Essay from the misrepresentation of M. de Resnal, the French Translator, and of M. de Crousaz, Professor of Philosophy and Mathematics in the Academy of Lausanne, the Commentator. At this period, when Mr. Warburton had the entire confidence of Mr. Pope, he advised him to complete the *Dunciad*, and add to it a fourth book. This was accordingly executed in 1742, and published early in 1743, with notes by our author; who, in consequence of it, received his share of the abuse which Mr. Cibber liberally bestowed on both Mr. Pope and his annotator. In the end of



the same year he published complete editions of the *Essay on Man*, and *The Essay of Criticism*; and, from the specimen which he there exhibited of his abilities, it may be presumed Mr. Pope determined to commit the publication of those works which he should leave to Mr. Warburton's care. At Mr. Pope's desire, he about this time revised and corrected the *Essay on Homer*, as it now stands in the last edition of that translation. The publication of *The Dunciad* was the last service which our author rendered Mr. Pope in his life time. After a lingering and tedious illness, the event of which had been long foreseen, this great poet died on the 30th of May 1744; and by his will, dated the 12th of December, bequeathed to Mr. Warburton one-half of his library, and the property of all such of his works already printed as he had not otherwise disposed of or alienated. In 1744 Mr. Warburton turned his attention to the several attacks which had been made on the *Divine Legation*, and defended himself in a manner which, if it did not prove him to be possessed of much humility or diffidence, at least demonstrated that he knew how to wield the weapons of controversy with the hand of a master. His first defence now appeared under the title of *Remarks on several Occasional Reflections*, in Answer to the Rev. Dr. Middleton, Dr. Pococke, the Master of the Charter House, Dr. Richard Grey, and others; serving to explain and justify divers Passages in the *Divine Legation*, objected to by those learned writers. To which is added A General Review of the Argument of the *Divine Legation*, as far as it is yet advanced; wherein is considered the Relation the several Parts bear to each other and the whole: with an Appendix in answer to a late Pamphlet entitled, *An Examination of Mr. W——'s second Proposition*. This was followed next year by *Remarks on several Occasional Reflections*, in Answer to the Rev. Doctors Stebbing and Sykes; serving to explain and justify the Two Dissertations in the *Divine Legation*, concerning the command to Abraham to offer up his Son, and the Nature of the Jewish Theocracy, objected to by these learned writers. Part II. and last. Both these answers are couched in those high terms of confident superiority which marked peculiarly almost every performance that fell from his pen during the remainder of his life. On the 5th of September, 1745, he married Miss Tucker, who survived him, and married Mr. Stafford Smith, of Prior Park. At that important crisis our author preached and published three seasonable sermons: 1. A Faithful Portrait of Popery, by which it is seen to be the reverse of Christianity, as it is the Destruction of Morality, Piety, and Civil Liberty. Preached at St. James's, Westminster, October 1745. 2. A Sermon occasioned by the present unnatural Rebellion, preached in Mr. Allen's Chapel, at Prior Park, near Bath, &c., November 1745. 3. The Nature of National Offences truly stated. Preached on the General Fast-day, December 18th, 1745—6. On account of the last of these sermons, he was again involved in a controversy with his former antagonist Dr. Stebbing, which occasioned An Apologetical Dedication to the Rev. Dr. Henry Stebbing, in Answer to his Censure and Misrepresentations of the Sermon preached on the General Fast, &c. In 1746 he was called by the Society of Lincoln's Inn to be their preacher. In November he published A Sermon preached on

the Thanksgiving appointed to be observed the 9th of October, for the Suppression of the late unnatural Rebellion. In 1747 appeared his edition of Shakspeare, and his Preface to *Clarissa*; and in the same year he published 1. A Letter from an Author to a member of Parliament concerning Literary Property. 2. Preface to Mrs Cockburn's *Remarks upon the Principles and Reasonings of Dr. Rutherford's Essay on the Nature and Obligations of Virtue*, &c. 3. Preface to a Critical Inquiry into the Opinions and Practice of the ancient Philosophers, concerning the Nature of a Future State, and the method of teaching by double Doctrine (by Mr. Towne), 1747, second edition. In 1748 a third edition of *The Alliance*, corrected and enlarged. About this time the publication of Dr. Middleton's *Enquiry concerning the miraculous Powers of the Christian Church*, gave rise to a controversy, which was managed with great warmth and asperity on both sides, and not much to the credit of either party. On this occasion Mr. Warburton published an excellent performance, written with a high degree of candor and temper. The title of it was *Julian*; or a Discourse concerning the Earthquake and fiery eruption which defeated that emperor's attempt to rebuild the Temple at Jerusalem, 1750. A second edition of this discourse, with Additions, appeared in 1751, in which year he gave the public his edition of Mr. Pope's Works, with Notes, in 9 vols. 8vo.; and in the same year printed An Answer to a Letter to Dr. Middleton, inserted in a Pamphlet entitled, the Argument of the *Divine Legation* fairly stated, &c.; and An Account of the Prophecies of Arise Evans, the Welsh Prophet in the last Century, annexed to the first volume of Dr. Jortin's *Remarks on Ecclesiastical History*. In 1752 he published the first volume of his sermons, preached at Lincoln's Inn, entitled *The Principles of Natural and Revealed Religion*, occasionally opened and explained; and this, in 1754, was followed by a second. His next work was A View of Lord Bolingbroke's Philosophy. In September 1754 he was appointed one of his majesty's chaplains, and in the next year was presented to a prebend in the cathedral of Durham. About this time the degree of D.D. was conferred on him by Dr. Herring, archbishop of Canterbury. A new impression of *The Divine Legation* being now called for, he printed a fourth edition of the first part of it, with a dedication to the earl of Hardwicke. The same year appeared A Sermon preached before Charles Duke of Marlborough, President, and the Governors of the Hospital for the Small-pox and for Inoculation, at the Parish church of St. Andrew, Holborn, April 24th, 1755. And in 1756 *Natural and Civil Events the Instruments of God's Moral Government*; a Sermon on the Fast-day, at Lincoln's Inn Chapel. In 1757 Dr. Warburton meeting with Mr. Hume's tract entitled, *The Natural History of Religion*, filled the margin of the book, and some interleaved slips of paper, with many severe and shrewd remarks on the infidelity and naturalism of the author. These he put into the hands of his friend Dr. Hurd, who, making a few alterations of the style, added a short introduction and conclusion, and published them in a pamphlet entitled, *Remarks on Mr. David Hume's Natural History of Religion*, by a Gentleman of Cambridge, in a Letter to the Rev. Dr. Warburton. Towards the end of 1757 Dr.



Warburton was promoted to the deanery of Bristol; and in the beginning of 1760 he was through Mr. Allen's interest with Mr. Pitt, afterwards earl of Chatham, advanced to the bishopric of Gloucester. He was consecrated on the 20th of January, 1760, and on the 30th preached before the house of lords. In 1761 he printed *A Rational Account of the Nature and End of the Sacrament of the Lord's Supper*. In 1762 he published *The Doctrine of Grace; or the Office and Operations of the Holy Spirit Vindicated from the Insults of Infidelity and the Abuses of Fanaticism*, 2 vols. 12mo.; and in 1763 drew upon himself much illiberal abuse from some writers of the popular party, on occasion of his complaint in the house of lords, on the 15th of November 1763, against Mr. Wilkes, for putting his name to certain notes on the infamous *Essay on Woman*. In 1765 he published a new edition of the second part of the *Divine Legation*, in 3 vols. In 1766 he gave a new and much improved edition of the *Alliance*. This was followed in 1767 by a third volume of sermons, to which is added his first Triennial Charge to the Clergy of his Diocese; which is one of the most valuable discourses of the kind to be found in any language. With this publication he closed his literary course; except that he made an effort towards publishing, and actually printed, the ninth and last book of the *Divine Legation*. This book with one or two occasional sermons, and some valuable directions for the study of theology, have been given to the world in the splendid edition of his works in 7 vols. 4to., by his friend and biographer the bishop of Worcester. That prelate says that the ninth volume under all disadvantages is the noblest effort which has hitherto been made to give a rationale of Christianity. While the bishop of Gloucester was thus exerting his last strength in the cause of religion, he projected a method by which he hoped to render it effectual service after his death. He transferred £500 to lord Mansfield, Sir Eardley Wilmot, and Mr. Charles Yorke, upon trust, to found a lecture, in the form of a course of sermons, to prove the truth of revealed religion in general, and of the Christian in particular, from the completion of the prophecies in the Old and New Testament, which relate to the Christian church, especially to the apostacy of papal Rome. To this foundation we owe the admirable *Introductory Lectures of Hurd*, and the well adapted *Continuation of Halifax and Bagot*. After this, by the decay of nature, the bishop fell into a habit of melancholy, which was aggravated by the loss of his only son, who died of a consumption but a short time before his father, who died June 1779, in the eighty-first year of his age. A neat marble monument has been erected to him in the cathedral of Gloucester, with a proper inscription. A new edition of Warburton's works, in 12 vols. 8vo., was published in 1811; and a selection of his private letters was printed immediately after bishop Hurd's death, and by his special direction.

A WAR CRY was formerly customary in the armies of most nations, when just upon the point of engaging. Sometimes they were only tumultuous shouts, or horrid yells, uttered with an intent to strike terror into their adversaries; such as is now used by the Indians in America, called the war-hoop.

WARD, *v. a., v. n., &*  
WARDEN, *n. s.* [*n. s.*]  
WARDER,  
WARD'SHIP.

Sax. *weapbian*; Belg. and Teut. *waren*; Goth. and Swed. *wara*. To guard; watch; defend; fence off: to be vigilant; act defensively with a weapon: a watch; garrison; the act of watching; the thing, or party, or district watched or defended: hence a child under a guard; guardianship; the effective part of a lock: a warder is a keeper, or head officer; and hence (perhaps) a large pear: warder is also a guard keeper; a truncheon: wardship, guardianship; pupilage.

So redoubling her blows, drove the stranger to no other shift than to ward and go back. *Sidney.*

It is also inconvenient, in Ireland, that the wards and marriages of gentlemen's children should be in the disposal of any of those lords. *Spenser.*

Upon those gates with force he fiercely flew,  
And, rending them in pieces, felly slew  
Those warders strange, and all that else he met. *Id.*  
Still when she slept he kept both watch and ward. *Id.*

The assieged castles ward  
Their stedfast stands did mightily maintain. *Id.*  
That wretched creature, being deprehended in that impiety, was held in ward. *Hooker.*

Where be these warders, that they wait not here?  
Open the gates! *Shakspeare.*

Then, then, when there was nothing could have staid

My father from the breast of Bolingbroke,  
O, when the king did throw his warder down,  
His own life hung upon the staff he threw. *Id.*

Tell him it was a hand that warded him  
From thousand dangers, bid him bury it. *Id.*

I must attend his majesty's command, to whom I am now in ward. *Id.*

Thou knowest my old ward; here I lay, and thus I bore my point. *Shakspeare. Henry IV.*

By reason of the tenures in chief revived, the sums for respect of homage be encreased, and the profits of wardships cannot but be much advanced. *Bacon.*

Lewis the Eleventh of France, having much abated the greatness and power of the peers, would say that he had brought the crown out of ward. *Id.*

Up and down he traverses his ground;  
Now words a felling blow, now strikes again. *Daniel.*

Nor must all shoots of pears alike be set,  
Crustumian, Syrian pears, and wardens great. *May.*

In the key-hole turns  
The intricate wards, and every bolt and bar. *Milton.*

Throughout the trembling city placed a guard,  
Dealing an equal share to every ward. *Dryden.*

Now by proof it shall appear,  
Whether thy horns are sharper, or my spear.  
At this I threw, for want of other ward,  
He lifted up his hand his front to guard. *Id.*

When, stern as tutors, and as uncles hard,  
We lash the pupil, and defraud the ward. *Id.*

The warders of the gate but scarce maintain  
The unequal combat, and resist in vain. *Id.*

As there are locks for several purposes, so are there several inventions in the making and contriving their wards, or guards. *Moron.*

Ox-cheek when hot, and wardens baked, some cry.  
*King.*

Titles of honour, and privileges, the rich and the great can never deserve, unless they employ them for the protection of these, the true wards and children of God. *Sprat.*

The worden of apothecaries' hall.  
The pointed javelin warded off his rage. *Addison.*

WARD (Dr. Samuel), a learned divine, educated at Emmanuel College, Cambridge. In 1609 he became master of Sidney College. He was



also professor of divinity, and archdeacon of Taunton. He was one of three deputies elected to the Synod of Dort, and was then a rigid Calvinist; but changed his opinion when there. During the civil war, in 1643, he was imprisoned by the rebels; and died of the ill treatment he had received. He wrote several tracts on Theology. Some of his Letters are preserved in archbishop Usher's works; folio edition.

WARD (Dr. Seth), an English prelate, chiefly famous for his knowledge in mathematics and astronomy, was born at Buntingford in Hertfordshire, in 1617. He was educated at Sidney College, Cambridge, where he applied with great vigor to his studies, particularly to the mathematics, and was chosen a fellow. He was involved in the consequences of the civil war, but soon after the Restoration was made bishop of Exeter, and in 1667 of Salisbury. In 1671 he was made chancellor of the order of the garter; and was the first Protestant bishop who had that honor. He procured it to be annexed to the see of Salisbury. He survived his senses in consequence of a fever. He lived to the Revolution, and died in 1690. He was the author of several Latin works in mathematics and astronomy, but their use has been superseded by later discoveries and the Newtonian philosophy.

WARD (Dr. John), the son of a dissenting minister, born at London in 1679. He kept a school in Tenter Alley, Moorfields; but rendered himself so eminent in the study of antiquity, that in 1720 he was chosen professor of rhetoric in Gresham College; in 1723, during the presidency of Sir Isaac Newton, he was elected F. R. S., and in 1752 one of the vice-presidents, which he retained to his death. He was elected one of the trustees of the British Museum in 1753, and died at Gresham College in 1758. His chief works are *Lives of the Professors of Gresham College*; and *Lectures on Oratory*, 2 vols. 8vo.

WARD (Edward), a burlesque writer, who in the end of the seventeenth century published *The London Spy*; and turned Don Quixote into Hudibrastic verse.

WARD (Thomas), another burlesque writer, a bigoted papist, who published a *History of the Reformation in doggerel verse*; in 2 vols. 12mo.

WARDEN OF THE CINQUE PORTS. See CINQUE PORTS.

WARDEN OF THE FLEET, the keeper of the Fleet prison: who has the charge of the prisoners there, especially such as are committed from the court of chancery for contempt.

WARDMOTE, wardmotus, a court kept in every ward in London, ordinarily called the wardmote court. The wardmote inquest hath power every year to enquire into and present all defaults concerning the watch and constables doing their duty; that engines, &c., are provided against fire; that persons selling ale and beer be honest, and suffer no disorders, nor permit gaming, &c., that they sell in lawful measures; searches are to be made for vagrants, beggars, and idle persons, &c., who shall be punished. Chart. K. Hen. II.; Lex Lond. 185. See LONDON.

WARD'ROBE, *n. s.* Fr. *garderobe*; low Lat. *garderoba*. A room where clothes are kept.

The third had of their wardrobe custody,  
In which were not rich tires nor garments gay,  
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The plumes of pride and wings of vanity,  
But cloaths meet to keep keen cold away. *Spenser*  
I will kill all his coats,  
I'll murder all his wardrobe piece by piece,  
Until I meet the king. *Shakespeare. Henry IV*  
Behold,  
What from his wardrobe her beloved allows,  
To deck the wedding-day of his unspotted spouse.  
*Dryden.*

A WARDROBE, in a prince's court, is an apartment wherein his robes, wearing apparel, and other necessities, are preserved under the care and direction of proper officers.

WARDROBE, THE MASTER, OR KEEPER OF THE GREAT, was an officer of great antiquity and dignity. High privileges and immunities were conferred on it by king Henry VI., which were confirmed by his successors; and king James I. not only enlarged them, but ordained that this office should be a corporation or body politic for ever. It was the duty of this office to provide robes for the coronations, marriages, and funerals of the royal family; to furnish the court with hangings, clothes of state, carpets, beds, and other necessities; to furnish houses for ambassadors at their arrival, &c. &c. Besides the master, who had a salary of £2000, there was his deputy, who had £150, and comptroller and a patent clerk, each of whom had a salary of £300. There was likewise a removing wardrobe, which had its own set of officers, and standing wardrobe-keepers of St. James's, Windsor Castle, Hampton Court, Kensington, and Somerset House; but the whole of the wardrobe establishment was abolished by act of parliament in 1782. The chief duties are now performed by the lord chamberlain.

WARDSHIP, in chivalry, one of the incidents of tenure by knight service. See FEUDAL SYSTEM, KNIGHT SERVICE, and TENURE.

WARE. The *pret.* of wear, more frequently wore.

A certain man *ware* no cloaths. *Luhe*, viii. 27.  
WARE, *adj.* } For this we commonly  
WAREFUL, } say aware. Being in ex-  
WAREFULNESS, *n. s.* } pectation of; being pro-  
WARE'LESS, *adj.* } vided against. Obsolete.  
The lord of that servant shall come in a day when he looketh not for him, and in an hour that he is not ware of him. *Matthew*, xxiv. 50.

With pretence from Strephon her to guard,  
He met her full: but full of warefulness. *Sidney*.  
They bound him hand and foot with iron chains,  
And with continual watch did warily keep. *Spenser*.  
Bid her well be ware and still erect. *Milton*.

WARE, *n. s.* } Saxon *waru*; Sweden *wara*.  
WAREHOUSE, } Commonly something to be sold  
a storehouse for wares.

If the people bring ware or any victuals to sell that we would not buy it. *Nehemiah*, x. 31.

Let us, like merchants, show our foulest wares,  
And think, perchance, they'll sell. *Shakespeare*.

I know thou whole art but a shop  
Of toys, and trifles, traps and snares,  
To take the weak, and make them stop;  
Yet art thou false than thy wares. *Ben Jonson*.

London, that veils of false ware so much store,  
In no ware deceives us more. *Cowley*.

His understanding is only the warehouse of other men's lumber, I mean false and unconcluding reasonings, rather than a repository of truth for his own use. *Locke*.

Sh. the big warehouse built,  
Raised the strong crane. *Thomson*.

**WARE** (Sir James), a learned historian, at Dublin, in 1594; educated at Trinity College; and knighted by the lord justices, in 1629. During the rebellion he came over to England, and was sent to the Tower by the parliament; but released a few months thereafter, on which he returned to Dublin. He then went to France; but returned on the Restoration, when he was restored to his office. He published, 1. *The History and Antiquities of Ireland*: folio. 2. *De Præsulibus Hiberniæ*: folio, and other works. He died at Dublin in 1666.

**WARE** (James), a late eminent oculist, and the author of several excellent professional works. Among these may be mentioned a Treatise on Ophthalmia, Psorophthalmia, and the Purulent Eye; Chirurgical Observations relative to the Epiphora, or Watery Eye, &c.; a Treatise on the Cataract, translated from the French of baron Wenzel, with remarks; an Enquiry into the Causes which have most Commonly Prevented the Success of the Operation of Extracting the Cataract; Remarks on the Fistula Lachrymalis; and Chirurgical Observations, 1798, 2 vols. 8vo., including various tracts. Mr. Ware was a fellow of the Royal Society and of the London Medical Society. After having been long engaged in the practice of his profession in London, with the highest reputation, he died at the age of sixty, April 13th, 1815.

**WARE**, a market-town on the river Lea, Brughin hundred, Herts, three miles and a half E. N. E. of Hertford, and twenty and a half north of London. It consists of one principal street, nearly a mile in length, with several smaller ones intersecting it, and is distinguished for its extensive malting establishments.

**WAREE**, a country of Western Africa, south-east of Benin and near the river Formosa, which falls into the gulf of Benin. The country is covered with an impenetrable forest, growing in a complete marsh, but the capital is situated on a beautiful island in the river, a little elevated above the surrounding country. The subsoil is a red clay, formed by the inhabitants into jars and other utensils. The capital is divided into two towns, of which the largest, and that in which the king resides, contains about 5000 inhabitants. Much trade is carried on with Benny and New Calabar. The chief European commodity in demand consists of a species of brass pans, used in the manufacture of salt.

**WAREHAM**, an ancient borough of Dorsetshire, seated at the junction of the Frome and the Piddle, where they fall into Luckford Lake, and there form a good harbour. It was anciently very large, and had eight churches; but in 875 was sacked by the Danes, and has now only three. It had also walls and a castle, now in ruins. In the reign of Edward the Confessor it had 148 houses and two mints. It has now 383 houses, 2065 inhabitants, and a market on Saturday. It sends one member to parliament. It is nine miles south-west of Poole, eighteen east of Dorchester, and 114 south-west of London. Long.  $2^{\circ} 16' W.$ , lat.  $50^{\circ} 43' N.$

**WARGENTIN** (Peter), a Swedish mathematician, born at Stockholm, in 1717. He constructed Tables of the Satellites of Jupiter; and wrote several useful papers in the Transactions of the Academy of Stockholm. He died at Stockholm in 1788.

**WARHAM** (William), an eminent prelate and statesman, born at Okely in Hants, and educated

at Winchester and Oxford, where he became a fellow. In 1494 he was sent ambassador to the duke of Burgundy, and on his return was made bishop of London; next lord chancellor, and lastly archbishop of Canterbury. He ruled with great moderation, and died in 1532.

**WARIN** (John), a celebrated sculptor and engraver of Liege, born in 1604. He was invited to the mint at Paris, where he engraved the seal for the ci-devant French republic, which will surely be preserved in the National Institute, as it was esteemed his master piece. The impression is Richelieu's head. He also made two elegant busts of Louis XIV. in bronze. He was poisoned by some villain in 1672.

**WARING** (Edward), M. D., Lucasian Professor of mathematics in the university of Cambridge, was the son of a wealthy farmer, of Old Heath, near Shrewsbury. The early part of his education he received at the free school in Shrewsbury; whence he removed to Cambridge, and was admitted on the 24th of March, 1753, a member of Magdalen College. Here his talents for abstruse calculation soon appeared, and, at the time of taking his degree, he was considered as a prodigy in those sciences which make the subject of the bachelor's examination. The name of Senior Wrangler was thought scarcely a sufficient honor to distinguish one who so far outshone his contemporaries; and the merits of John Jebb were sufficiently acknowledged by being second in the list. Waring took his degree of B. A. in 1757, and the Lucasian professorship became vacant before he was of sufficient standing for the degree of A. M. which is a necessary qualification for that office. This defect was supplied by a royal mandate, through which he became M. A. in 1760; and soon after Lucasian professor. In 1762 he published his *Miscellanea Analytica*; one of the most abstruse books written on the abstrusest parts of algebra. This work extended his fame over all Europe. He was elected, without solicitation, member of the societies of Bononia and Gottingen; and received flattering marks of esteem from the most eminent mathematicians at home and abroad. Mathematics did not, however, engross the whole of his attention. In 1767 he was admitted to the degree of M. D., but it was to him merely a barren title. His life passed on, marked out by discoveries, chiefly in abstract science; and by the publication of them in the *Philosophical Transactions*, or in separate volumes, under his own inspection. He lived some years at St. Ives, in Huntingdonshire. While at Cambridge he married—quitted Cambridge with a view of living at Shrewsbury; but the air or smoke of the town being injurious to Mrs. Waring's health, he removed to his own estate at Plaisley, eight miles from Shrewsbury, where he died in 1797, universally esteemed for inflexible integrity, modesty, plainness, and simplicity of manners. He was the discoverer, he says, of nearly 400 propositions in the *Analytics*. In 1759 he published the first chapter of the *Miscellanea Analytica*, as a specimen of his qualifications for the professorship. He published also, 1. *Proprietas Algebraicarum Curvarum*, in 1772; *Miscellanea Analytica*; 2. *Meditationes Algebraicæ*, in 1770; *Meditationes Analyticæ*, in 1773—6. These were his chief and most laborious works. In the *Philosophical Transactions* is to be found a variety of papers, which alone would be



sufficient to place him in the first rank in the mathematical world. For these papers, the professor was, in 1784, deservedly honored by the Royal Society with Sir Godfrey Copley's medal. He also wrote a work on *Morals and Metaphysics* in the English language; but a few copies only were presented to his friends.

**WARKWORTH**, a parish, and formerly a market town, of Northumberland, on the river Coquet, three miles south of Alnmouth, and 305 north of London. The church is a handsome building, having a spire 100 feet high; some of the windows contain paintings on the glass. It has a bridge over the Coquet, near which is an ancient tower. At the south end of the town stands Warkworth Castle, the magnificent seat of the duke of Northumberland, surrounded with walls and a moat, and covering an area of five acres and a half. The grand entrance-gate is on the south side, between two polygon towers; the keep, or dungeon, forms the north point in the form of a square, which contains a variety of magnificent apartments, and above it rises a high watch-tower. Although the Percy family have a large castle at Alnwick, ten miles distant, this appears always to have been the favorite residence of that family. About half a mile from the castle, on the banks of the river, is the Hermitage, formed out of the solid rock, and overhanging the river in a most picturesque manner; the chapel is modelled and executed in a very beautiful style of Gothic architecture; it is in length about eighteen feet, and in width and height not more than seven and a half. Tradition says that this hermitage was founded by one of the Bertram family, lord of Bothall Castle, where he expiated in penance the murder of his brother. Warkworth has a market-cross, but the market has long been discontinued.

**WAR'LOCK**, *n. s.* } Sax. *peplog*, an evil spirit;  
**WAR'LUCK**. } Isl. *vardlookr*, a charm. A  
male witch; a wizzard.

He was no *warluck*, as the Scots commonly call such men, who they say are iron free or lead free. *Dryden*.

**WARM**, *adj. v. a., & v. n.* } Sax. *peapm*; Goth.  
**WARM'LY**, *adv.* } and Belg. *warm*.  
**WARM'NESS**, *n. s.* } Heated to a small  
**WARMTH**. } degree: hence zealous; ardent; passionate; busy; heated with action or temper: the derivatives follow both the literal and metaphorical sense.

He stretched himself upon the child, and the flesh of the child waxed *warm*. *2 Kings iv. 34.*

There shall not be a coal to *warm* at, nor fire to sit before it. *Isaiah xlii. 14.*

What *warmth* is there in your affection towards any of these princely suitors that are already come? *Shakespeare.*

Cold plants have a quicker perception of the heat of the sun increasing than the hot herbs have; as a cold hand will sooner find a little *warmth* than a hot. *Bacon's Natural History.*

He vital virtue infused, and vital *warmth*,  
Throughout the fluid mass. *Milton.*

There the warming sun first *warmly* smote  
The open field. *Id.*

The same *warmth* of head disposes men to both. *Temple.*

Welcome, day-light; we shall have *warm* work on 't:  
The Moor will gage

His utmost forces on his next assault,  
To win a queen and kingdom. *Dryden.*

The action of Homer, being more full of vigour than that of Virgil, is more pleasing to the reader: one

*warms* you by degrees, the other sets you on fire all at once, and never intermits his heat. *Dryden.*

The best patriots, by seeing with what *warmth* and zeal the smallest corruptions are defended, have been wearied into silence. *Davenant.*

We envy not the *warm*er clime, that lies  
In ten degrees of more indulgent skies. *Addison.*

Now I have two right honest wives;  
One to Atrides I will send,  
And t' other to my Trojan friend;  
Each prince shall thus with honour have  
What both so *warmly* seem to crave. *Prior.*

The ancients expect you should do them right in the account you intend to write of their characters: I hope you think more *warmly* than ever of that design. *Pope.*

Scaliger in his poetics is very *warm* against it. *Broome.*

**WARMINSTER**, a market town of Wilts, on the small river Willy, which falls into the Avon at Salisbury, twenty-two miles N. N. W. of Salisbury, and ninety-seven west by south of London. Its principal trade is in malt, and it has a small woollen manufacture. This town is supposed to have been the Verlucio of the Romans. Market on Saturday, well supplied with corn.

**WARN**, *v. a.* } Sax. *pænman*; Belg. *waernen*;  
**WARN'ING**, *n. s.* } Goth. and Swed. *warna*; Isl. *varna*. To caution against fault or danger; to give previous notice of ill; admonish: the noun substantive corresponds.

I will thank the Lord for giving me *warning* in the night. *Psalms.*

Cornelius was *warned* from God, by an holy angel, to send for thee. *Acts x. 22.*

What, dost thou scorn me for my gentle counsel,  
And sooth the devil that I *warn* thee from? *Shaksp.*

Our first parents had been *warned*  
The coming of their secret foe, and 'scaped  
His mortal snare. *Milton's Paradise Lost.*

Juturna *warns* the Daunian chief  
Of Lausus' danger, urging swift relief. *Dryden.*

He, groaning from the bottom of his breast,  
This *warning* in these mournful words exprest. *Id.*

Death called up an old man, and bade him come;  
the man excused himself, that it was a great journey to take upon so short a *warning*. *L'Estrange.*

If we consider the mistakes in men's disputes and notions, how great a part is owing to words, and their uncertain or mistaken significations; this we are the more carefully to be *warned* of, because the arts of improving it have been made the business of men's study. *Locke.*

The hand can hardly lift up itself high enough to strike, but it must be seen, so that it *warns* while it threatens; but a false insidious tongue may whisper a lie so close and low that, though you have ears to hear, yet you shall not hear. *South.*

You have fairer *warning* than others who are unexpectedly cut off, and so have a better opportunity, as well as greater engagements, to provide for your latter end. *Wake.*

A true and plain relation of my misfortunes may be of use and *warning* to credulous maids, never to put too much trust in deceitful men. *Swift.*

**WARNER** (Ferdinand), LL. D., a learned English divine and historian, who was rector of St. Michael, Queenhithe, London, and of Barnes, Surrey; he was esteemed a good preacher. He wrote, 1. An ecclesiastical History of England; 2 vols. 2. Memoirs of Sir Thomas More. 3. History of the Irish Rebellion; 2 vols. 8vo; and 4. A Treatise on the Cure of the Gout; of which, however, he died in 1768.

**WARNER** (John), D. D., son of the doctor, was

educated at Cambridge, where he graduated in 1771. He obtained the livings of Hockliffe, Chilton, and Stourton. In 1789 he accompanied lord Gower our ambassador to Paris, and witnessed the earliest events of the French revolution. On his return he opposed the French war, and the British ministry till his death, in January 1800. He was a popular preacher, and a benevolent man. He translated the Life of Friar Gerund; and wrote Metron-Ariston, a work which made much noise among the learned.

WARNER (Richard), a learned botanist, educated at Wadham College, Oxford. He wrote, 1. *Plantæ Woodfordienses*; 2. A Letter to Garrick, as to a Glossary to Shakspeare; of whose works he had prepared an accurate edition, but Stevens's superseded it. He died in 1775, and left his valuable library to Wadham College.

WARP, *v. n. & v. a.* Sax. *werpan*; Belg. *werpen*; Goth. and Swed. *warpa*, to throw. To change or bend from the true position by intestine motion; to twist; turn; cast away; lose proper course or direction: as a verb active, to turn aside; contract; shrivel.

Freeze, freeze, thou bitter sky!

Thou dost not bite so nigh

As benefits forgot:

Though thou the waters warp,

Thy sting is not so sharp.

As friends remembered not.

Shakspeare.

There's our commission,

From which we would not have you warp.

Id.

Up called a pitchy cloud

Of locusts, *warping* on the eastern wind,

That o'er the realm of impious Pharaoh hung

Like night. Milton's *Paradise Lost*.

Not foreign or domestick treachery

Could warp thy soul to their unjust decree.

Dryden.

Not warped by passion, awed by rumour,

Nor grave through pride, or gay through folly;

An equal mixture of good-humour,

And sensible soft melancholy.

Swift.

WARP, *n. s.* Sax. *werp*; Belg. *werp*. That order of thread in a thing woven that crosses the woof.

The placing of the tangible parts in length or transverse, as it is in the *warp* and the woof of texture, more inward or more outward. Bacon's *Natural History*.

WARP, in the manufactures, the threads whether of silk, wool, linen, hemp, &c., that are extended lengthwise on the weaver's loom; and across which the workman, by his shuttle, passes the threads of the woof, to form a cloth, ribband, fustian, or the like.

WARP, in sea language, a small rope employed occasionally to remove a ship from one place to another, in a port, or road, or river.

To WARP is to change the situation of a ship, by pulling her from one part of a harbour, &c., to some other, by means of warps, which are attached to buoys; to anchors sunk in the bottom; or to certain stations upon the shore, as posts, rings, trees, &c.

WAR-RANT, *v. n. & n. s.* Fr. *garantir*. To support; maintain; WAR-RANTABLE, *adj.* attest; justify; give WAR-RANTABLENESS, *n. s.* authority; privilege; WAR-RANTABLY, *adv.* assure: a writ conveying authority or security; a commission; attestation; right: warrantable is justifiable; defensible: the noun substantive and adverb corresponding: warrantise, authority; security (obsolete): warranty also signifies

security, legal undertaking, or promise of security.

These thoughts cannot, in this your loneliness, warrant you from suspicion in others, nor defend you from melancholy in yourself.

Sidney.

By the foil thereof you may see the nobleness of my desire to you, and the warrantableness of your favour to me.

Id.

His promise is our plain warrant, that in his name what we ask we shall receive.

Hooker.

Now we'll together, and the chance of goodness

Be like our warranted quarrel. Shakspeare. *Macbeth*.

Are you now going to dispatch this deed?

— We are, my lord, and come to have the warrant,

That we may be admitted where he is. Id. *Richard III*.

Her obsequies have been so far enlarged

As we have warranty.

Shakspeare.

There's none protector of the realm but I:

Break up the gates, I'll be your warrant.

Id.

The place of Paradise might be seen unto Moses, and unto the prophets who succeeded him; both which I take for my warrant to guide me in this discovery.

Raleigh.

In the use of those epithets we have the warranty an consent of all the churches, since they ever had a liturgy

Taylor.

He sent him a warrant for one thousand pounds year pension for his life.

Clarendon.

To purchase a clear and warrantable body of truth we must forget and part with much we know.

Brown.

The Moors' king

Is safe enough, I warrant him for one.

Dryden.

If I can mend my condition by any warrantable industry, the way is fair and open; and that 's a privilege every reasonable creature has in his commission.

L'Estrange.

His meals are coarse and short, his employment warrantable, his sleep certain and refreshing.

South.

If they disobey any precept, that is no excuse to us, nor gives us any warranty, for company's sake, to disobey likewise.

Kettlewell.

True fortitude is seen in great exploits,

That justice warrants and that wisdom guides:

All else is towering frenzy and distraction.

Addison.

A WARRANT, in law, is a power and charge to a constable or other officer to apprehend a person accused of any crime. It may be issued in extraordinary cases by the privy council, or secretaries of state; but most commonly it is issued by justices of the peace. This they may do in any case where they have a jurisdiction over the offence, in order to compel the person accused to appear before them. And this extends to all treasons, felonies, and breaches of the peace; and also to all such offences as they have power to punish by statute. Before the granting of the warrant, it is proper to examine upon oath the party requiring it, as well to ascertain that there is a felony or other crime actually committed, without which no warrant should be granted; as also to prove the cause and probability of suspecting the party against whom the warrant is prayed. This warrant ought to be under the hand and seal of the justice; should set forth the time and place of making, and the cause for which it is made; and should be directed to the constable, or other peace officer, or it may be to any private person by name. A general warrant to apprehend all persons suspected, without naming or particularly describing any person in special, is illegal and void for its uncertainty; for it is the duty of the magistrate, and ought not to be left to the officer, to judge of the ground of suspicion. Also a warrant to apprehend all persons guilty of such a crime is no legal warrant; for the point upon which its authority rests is a



fact to be decided on a subsequent trial; namely, whether the person apprehended thereupon be guilty or not guilty. When a warrant is received by the officer, he is bound to execute it, so far as the jurisdiction of the magistrate and himself extends. A warrant from any of the justices of the court of king's bench extends over all the kingdom, and is tested or dated England; but a warrant of a justice of the peace in one county, must be backed, that is, signed by a justice of another county, before it can be executed there. And a warrant for apprehending an English or a Scottish offender may be indorsed in the other kingdom, and the offender carried back to that part of the united kingdom in which the offence was committed.

**WARRANT OF ATTORNEY**, in English law, an authority and power given by a client to his attorney to appear and plead for him; or to suffer judgment to pass against him by confessing the action, by *nil dicit*, *non sum informatus*, &c. And although a warrant of attorney given by a man in custody to confess a judgment, no attorney being present, is void as to the entry of a judgment, yet it may be a good warrant to appear and file common bail. A warrant of attorney which warrants the action is of course put in by the attorneys for the plaintiff and defendant; so that it differs from a letter of attorney, which passes ordinarily under the hand and seal of him that makes it, and is made before witnesses, &c. Though a warrant of attorney to suffer a common recovery by the tenant is acknowledged before such persons as a commission for the doing thereof directs. West's Symb. par. 2.

A warrant of attorney is not avoided against an innocent party, even by an entire omission to comply with the general rule. 14 East's Rep. 576. Nor, consequently, by omitting to state in the defence a collateral security for the same debt. *Sanson v. Goode*, Term Rep. K. B. Easter, 59 Geo. III. 568. But the omission to indorse the defence is cause of censure on the attorney who proposes it.

**WARRAY**, *v. a.* From war; or from old Fr. *guerroyer*. To make war upon. Johnson says, 'A word very elegant and expressive, though obsolete.'

This continual, cruel, civil war,  
The which myself against myself do make,  
Whilst my weak powers of passions *warraid* are,  
No skill can stint, nor reason can aslake. *Spenser*.

Six years were run since first in martial guise  
The Christian lords *warraid* the eastern land. *Fairfax*.

**WARREE**, or **SAWUNT WARREE**, an extensive district of Hindostan, province of Bejapoor and district of the Concan. It is situated between the sea and the western Ghaut mountains, being about forty miles in length by twenty-five in breadth. The country is rocky and unproductive; on which account the inhabitants were formerly much addicted to piracy; and in old maps this tract is designated the Pirate Coast.

**WARREN**, *n. s.* From ware. Belg. *waerande*; Goth. and Swed. *warn*; Fr. *guerre*. A kind of park or preserve for rabbits.

I found him here, as melancholy as a lodge in a  
*warren*. *Shakspeare. Much Ado about Nothing*.

The coney convenes a whole *warren*, tells her story,  
and advises upon revenge. *L'Estrange*.

Men should set snares in their *warrens*, to catch pole-  
*cats* and foxes. *Dryden's Spanish Fryar*.

A **WARREN** is a franchise, or place privileged by prescription or grant from the king, for the keeping of beasts and fowls at the warren; which are hares and coney, partridges, pheasants, and some add quails, woodcocks, water-fowl, &c. These being *feræ naturæ*, every one had a natural right to kill as he could: but upon the introduction of the forest laws at the Norman conquest, these animals being looked upon as royal game, and the sole property of our savage monarchs, this franchise of free-warren was invented to protect them, by giving the grantee a sole and exclusive power of killing such game, so far as his warren extended, on condition of his preventing other persons. A man therefore that has the franchise of warren is in reality no more than a royal gamekeeper: but no man, not even a lord of a manor, could by common law justify sporting on another's soil, or even on his own, unless he had the liberty of free-warren. This franchise is almost fallen into disregard since the new statutes for preserving the game; the name being now chiefly preserved in grounds that are set apart for breeding hares and rabbits. There are many instances of keen sportsmen in ancient times, who have sold their estates, and reserved the free-warren, or right of killing game, to themselves: by which means it comes to pass that a man and his heirs have sometimes free-warren over another's ground. A warren may lie open; and there is no necessity of enclosing it as there is of a park. If any person offend in a free-warren, he is punishable by the common law. And by stat. 21 Edw. III., if any one enter wrongfully into any warren, and chase, take, or kill, any coney without the consent of the owner, he shall forfeit treble damages, and suffer three months imprisonment, &c. By 22 and 23 Car. II., c. 25, when coney are on the soil of the party, he hath a property in them by reason of the possession, and action lies for killing them; but, if they run out of the warren and eat up a neighbour's corn, the owner of the land may kill them, and no action will lie.

**WARREN** (Sir Peter), admiral, was descended from an ancient family in Ireland. He served in the navy several years with great reputation; but the transaction which placed his great abilities in their full light was the taking of Louisburg in 1745, when he was commodore of the British squadron. The French, exasperated at this loss, were constantly on the watch to retake it; and in 1747 fitted out a large fleet for that purpose, and, at the same time, another squadron to prosecute their success in the East Indies. These squadrons sailed at the same time; but the views of the French were rendered abortive by the gallant Anson and sir Peter Warren who had been created rear-admiral, and who fell in with the French, defeated the whole fleet, and took the greatest part of the men of war. This was the last service sir Peter rendered to his country as a commander in the British fleet, a peace being concluded in 1748. He was then chosen one of the representatives in parliament for Westminster; and, in the midst of his popularity, he paid a visit to Ireland, his native country, where he died of an inflammatory fever in 1752; and an elegant monument of marble was erected to his memory in Westminster Abbey.

**WARREN** (Charles), F. S. A., an eminent engraver who first succeeded in engraving on steel. Dying suddenly of apoplexy, the gold medal awarded him by the Society of Arts was presented by his



royal highness the duke of Sussex to his brother, in trust for his daughter. He died in the prime of life April 21st, 1823.

**WARREN** (sir J. Borlase), bart. G. C. B., admiral, was descended from the ancient family of the Borlases in Cornwall. From Winchester school he at an early age entered the naval service, but soon after availed himself of a temporary opportunity, and entered himself of Emanuel College, Cambridge. On the breaking out of the French war he was appointed to the *Flora* frigate, and received the command of a squadron for the purpose of annoying the coast of France. In 1794 he obtained for his services the riband of the order of the Bath, and the year following acted as commodore of the division which landed a body of emigrants in Quiberon Bay. Having removed into the *Canada* seventy-four, he joined the Brest fleet under lord Bridport, and being detached with a squadron came up on the 10th of October, 1798, off the coast of Ireland, with the *Hoche*, a French man-of-war, and three frigates laden with troops. After a smart engagement he succeeded in capturing the whole squadron, and received the thanks of parliament. Soon after he hoisted his flag as rear-admiral, whence he arrived in due course at the rank of admiral of the white. On the conclusion of peace he went out as ambassador extraordinary to Russia, a situation which the dispute with that power respecting the island of Malta rendered of considerable delicacy, and he appears to have conducted himself with great prudence. He sat in four parliaments, being returned in those of 1774 and 1780 for the borough of Great Marlow, and in those of 1796 and 1802 for that of Nottingham. He died February 27th, 1822, in the apartments of sir R. Keats at Greenwich Hospital.

**WARRINGTON**, a borough-town and parish in West Derby hundred, Lancashire, eleven miles from Northwich, on the banks of the Mersey, which separates it from Cheshire eighteen miles east of Liverpool, and 173 from London. Its manufactures are sailcloth, canvas, fustian, pins, glass, &c. The church contains many ancient and handsome monuments, and has a neat chapel of ease, consecrated in 1760, and another chapel of ease in the suburb, near the bridge. In the town are also a Roman Catholic chapel and several meeting-houses for Dissenters; a well-endowed free-school, and two good charity-schools, for educating and clothing children of both sexes. It also has an academy for the education of youth, particularly for trade and merchandise. Over the Mersey is a handsome stone bridge, near which anciently stood a priory of Augustines. The river, by the aid of the tide, will admit small vessels to float up to the quays near the town. Besides its manufactures of huckabacks and coarse cloths, Warrington has long been noted for the excellence of its malt. It is not incorporated, but is governed by the justices of the peace, assisted by four constables. Here is a bank. Market on Wednesday, noted for fish, provisions, and all kinds of cattle, not inferior to the Leicestershire breed. It sends one member to parliament.

**WARRIOR**, *n. s.* From war. A soldier; a military man.

I came from Corinth,  
Brought to this town by that most famous warrior,  
Duke Menaphon. *Shakspeare. Comedy of Errors.*

I sing the warrior and his mighty deeds.

*Lauderdale.*

Desire of praise first broke the patriot's rest,  
And made a bulwark of the warrior's breast. *Young.*

**WARSAW**, a large city of Europe, the capital of Poland, situated on the left bank of the Vistula. The course of that river is from south to north; its depth here is less than that of the Thames at London, but its width somewhat greater. Warsaw is an open town covering a great extent of ground, the length of the town and suburbs being between three and four miles, its breadth between two and three, including large spaces occupied by gardens. The population is said, before it lost (in 1795) its character of capital of the whole of Poland, to have exceeded 90,000. In the subsequent years of trouble the population fell to 70,000; but since 1815, when the peace of the country was consolidated, and Warsaw again rendered the resort of a legislative body, the population has been on the increase.

The city, originally little better than an accumulation of cottages, received considerable improvements from its Saxon sovereigns. Still it is an irregular place, exhibiting a singular contrast of ostentation and poverty.

The town is divided into the Old and New, exclusive of four suburbs, of which one, Praga, lies on the right bank of the Vistula. The old town consists of one main street, with some smaller streets joining it on either side. It is miserably built, with the exception of a few public edifices. The New Town is less badly built, and extends along the banks of the Vistula, in a winding form, to the extent of nearly three miles, including a number of gardens. It contains several churches, public buildings, and barracks. The largest edifice is the palace of the viceroy. Its extensive garden forms the only public walk of the place. The castle of Warsaw is a large quadrangle, with halls where the two houses of parliament (the diet and senate) hold their sittings.

Praga is memorable for the assaults made on it in the autumn of 1794 by the Russian army under Suwarrow; assaults too nearly resembling those on Ismail. Praga was on that occasion almost totally destroyed, and was long ere it rose from its ruins. Now, however, it is rebuilding on a neat and even elegant plan. Of the castles or mansions in the vicinity of Warsaw one of the most remarkable is that which was once the residence of Sobieski, and which is still remarked for its beautiful gardens. Two miles to the west of the town is the village and field of Wola, the scene, in former ages, of the assemblage of the national diet.

Of the public establishments of Warsaw the principal are the offices of government, which, since 1815, have re-assumed a regal form. Towards the end of 1816 there was established a university, consisting, like those of Germany, of classes in theology, law, philosophy, and several of the sciences, including political economy. Here are also schools for surgery and drawing, a lyceum or high school, a college for the sons of the Catholic nobility, and a military academy. To these are to be added a society for the sciences generally, and another for natural history and agriculture; also a public library, and a collection of coins and medals. Warsaw has lost, in the wars of the last and present century, several of its ornaments, in particular the public library which belonged to the state, and was greatly injured in its conveyance, in 1795, to St. Petersburg. A collection of paintings, formed by king Stanislaus, was also removed.



The Vistula, here near the middle of its course, is navigable to a great extent upwards as well as downwards. At some seasons, however, great inconvenience has been experienced from the extent of its inundations, and the shifting of sandbanks. The middle of summer is the most favorable season; and during the interval that the channel is full, without overflow, it is computed that nearly 100 boats or barges, laden with the produce of the country, namely, corn, spirits, and wine, are daily sent down its stream. It abounds in fish. Woollen stuffs, soap, tobacco, gold and silver wire, are made here; also carriages, harness, and, to a small extent, carpeting. Here are likewise several wholesale mercantile houses, whose business is the import of articles for the supply of the interior, and the export of Polish produce. Since 1817 two great annual fairs have been established here, on the plan of those of Frankfort and Leipsic. They are held in May and November, each during three weeks. Warsaw is said to contain only six booksellers.

It was in 1566 that the diet was transferred hither from Cracow. In the war with the Swedes, in the middle of the seventeenth century, Warsaw was occupied by the invaders, who made it (in 1655) the dépot of the spoils collected in their progress through the country. When Charles XII. advanced, at a subsequent date (1703), to Warsaw, it surrendered without opposition. The chief part of last century passed without alarm; but in 1793 the Russian garrison that occupied it were expelled by the Poles, on receiving intelligence of the success of Kosciusko near Cracow. That leader, when obliged next year to change the scene of contest, retreated on Warsaw, and defended it with success against the Prussians during the summer of 1794, obliging them eventually to raise the siege. A different fate awaited it on the arrival of Suwarow. Praga being taken by assault, and delivered to pillage, the capital submitted without opposition. On the final partition of Poland, in 1795, this part of the country fell to the share of Prussia, and Warsaw had no other rank than that of capital of a province until the end of 1806, when the overthrow of the power of Prussia led to the formation, by Buonaparte, of the duchy of Warsaw. Of this state it continued the capital until the evacuation of Poland by the French in January, 1813. Since 1815 it has, in a manner, retained its character of a capital, being the residence of a viceroy of the emperor of Russia; also the place of meeting of the Polish parliament. 320 miles east of Berlin, and 240 S. S. E. of Dantzie.

WART, *n. s.* Sax. *pearnt*; Belg. *werte*; Goth. and Swed. *warta*. A corneous excrescence on the flesh.

If thou prate of mountains, let them throw  
Millions of acres on us, till our ground,  
Singing his pate against the burning sun,  
Make Ossa like a wart. *Shakspeare. Hamlet.*

Like vile stones lying in saffron'd tin,  
Or warts, or weals, it hangs upon her skin. *Donne.*

WART SUCCORY, in botany. See LAPSAÑA.

WARTON (Thomas), B. D., was fellow of Magdalen College, Oxford, and professor of poetry from 1718 to 1728. He was appointed vicar of Basingstoke in Hampshire and Cobham in Surrey. He published some tracts, but was excelled in fame by his sons.

WARTON (Joseph), D. D., was born in the end

of 1721 or beginning of 1722. He was the eldest son of the above, and born in Oxford. For many years he was successively under and upper master of Winchester College, but resigned the last of these offices when he found the infirmities of age coming upon him; and was succeeded by Dr. Goddard. He was likewise prebendary of the cathedral church of Winchester and rector of Wickham in Hampshire, where he died, aged seventy-eight. His publications are few but valuable. A small collection of poems, without a name, was the first of them, and contained the Ode to Fancy, which has been so much and so deservedly admired. They were all afterwards printed in Dodsley's collection. He was also a considerable contributor to the *Adventurer*, published by Dr. Hawkesworth; and all the papers which contain criticisms on Shakspeare were written by him and his brother Thomas. His last work, which he undertook for the booksellers at a very advanced age, was an edition of Pope's works.

WARTON (Thomas), the brother of the preceding, was born in 1728. He received the first part of his education at Winchester; and at the age of sixteen was entered a commoner of Trinity College, Oxford, under Mr. Geering. He began his poetical career early. In 1745 he published five pastoral eclogues, in which are beautifully described the miseries of war to which the shepherds of Germany were exposed. In 1749 appeared the *Triumph of Isis*. In 1751 he succeeded to a fellowship of his college. In 1753 appeared his observations on the *Fairy Queen* of Spenser, in 8vo., a work which he corrected, enlarged, and republished, in 2 vols., crown 8vo., in 1762. In 1756 Mr. Warton was elected professor of poetry, which office he held for the usual term of ten years. His lectures were remarkable for elegance of diction and justness of observation. One of them, on the subject of pastoral poetry, was afterwards prefixed to his edition of Theocritus. In 1758 he assisted Dr. Johnson in the subscription to his edition of Shakspeare, and furnished him with some valuable notes. From the Clarendon press, in 1766, he published *Anthologie Græce*, a Constantino Cephalâ condite, libri tres, 2 vols., 12mo. In 1770 he published, from the academical press, his edition of Theocritus, in 2 vols., 8vo. In 1771 he was elected a fellow of the Antiquarian Society, and was presented by the earl of Lichfield to the living of Kidlington in Oxfordshire, which he held till his death. He also in this year published an improved account of the Life of Sir Thomas Pope, founder of Trinity College, Oxford. The plan for a history of English poetry was laid by Pope, enlarged by Gray; but to bring an original plan nearly to a completion was reserved for the perseverance of Warton. In 1774 appeared his first volume; in 1778 the second and third, which brings the narrative down to the reign of Elizabeth in 1581. In 1777 he collected his poems into an 8vo. volume, containing miscellaneous pieces, odes, and sonnets. In vindication of the opinion he had given in his second volume of the History of Poetry, relative to the ingenious attempt of Chatterton to impose upon the public, he produced, in 1782, *An Enquiry into the Authenticity of the Poems attributed to Rowley*. In 1785 he was appointed poet laureat, on the death of Whitehead, and elected Camden professor of ancient history on the resignation of Dr. Scott. His last publication, except his official odes, consisted of



Milton's smaller poems. A 4to. edition appeared in 1790, with corrections and additions. Until he reached his sixty-second year he continued to enjoy vigorous and uninterrupted health, but at that age he died in 1790.

WARWICK, the county-town of Warwickshire, in Knightlow hundred, on the banks of the Avon, near the centre of the county, ninety-one miles north-west of London. In the vicinity of the market-place are houses so large and well built as satisfactorily to prove the commercial respectability of the place. The town-hall is a handsome building of free-stone, supported by pillars, and the county-hall is a spacious and ornamental structure. The market-house is a substantial stone building; the county gaol is also an extensive and well-designed modern fabric, and the Bridewell is well adapted to its purposes. The different sects of Dissenters have places of worship in this town. Formerly it had six parish churches, but has now only two. St. Mary's is a noble Gothic structure; before the Reformation it was collegiate, but at the dissolution Henry VIII. gave it to the inhabitants as a place of worship. In the choir are several handsome brass monuments of the ancient earls of Warwick buried there, and one of the earl of Essex, the unfortunate favorite of queen Elizabeth. In the entrance of the middle aisle is a handsome marble font; on the south side is a beautiful chapel dedicated to the Virgin Mary. The church of St. Nicholas has a lofty spire, the tower of which contains eight bells. In former times there were many religious houses in this town, but they were rather hospitals than convents, and but poorly endowed. Here are three charity-schools, an hospital for twelve decayed gentlemen, one also for eight poor women, and two others for decayed tradesmen. Over the Avon is an elegant stone bridge of one arch, erected at the expense of the earl of Warwick.

On the northern bank of the river stands the castle, on the solid rock, 100 feet higher than the level of the Avon, but on the north side it is even with the town, and has a charming prospect from the terrace. Across the river, communicating with the castle, there was a stone bridge of twelve arches, and, by a stone-work dam, the water forms a cascade under the castle walls. It is supposed to have been originally built by Ethelfleda, queen of Mercia, in the tenth century. William the Conqueror, considering the castle to be of great importance, enlarged it, and put it into complete repair, giving it to the custody of Henry de Newbury, on whom he bestowed the earldom of Warwick. During the barons' wars it was nearly demolished by Gifford, governor of Kenilworth Castle, but it was soon afterwards rebuilt. In the reign of Richard II. Beauchamp, earl of Warwick, erected a tower at the north-east corner, the walls of which were ten feet thick. By James I. this castle was granted to sir Fulk Greville, who expended £20,000 in its repair. In the reign of Charles II. Robert, earl of Brooke, embellished the whole building, and particularly fitted up the state apartments. It is at present one of the noblest castles remaining in England: the apartments are elegantly furnished, and adorned with many original paintings. At one end is a lofty tower with a beautiful small chapel.

The town is incorporated under a mayor, recorder, twelve aldermen, and twenty-four common-councilmen. In 1811 it was handsomely paved and is

now lighted with gas. It sends two members to parliament, who are chosen by the inhabitants paying scot and lot. Warwick was nearly destroyed by fire in 1694, but, by the assistance of parliament and the generosity of the public, it was soon after rebuilt in the handsome manner in which it now appears. There is a mill on the river Avon, one mile and a half from the town, for spinning cotton yarn; and here are extensive manufactories for combing and spinning long wool, and other branches of the hosiery trade. The commercial prosperity of the town has been much increased by the canal.

At Guy Cliff House is recorded to have stood an hermitage, to which the renowned Guy, earl of Warwick, retired after the many valorous exploits recorded of him in this part of the country. In the suburbs was a chantry erected to his memory by Beauchamp, earl of Warwick, in the reign of Henry VI., with a statue to his memory. This Guy is supposed to have flourished in the reign of Athelstan, and besides the many victories over dragons, wild boars, &c., is said to have decided the fate of the kingdom, in single combat, with an enormous giant that stood the champion of the Danes, at Mem Hill, near the walls of Winchester, where king Athelstan was besieged. Many curiosities are still shown in the castle as belonging to the hero. Here are annual horse-races, well attended. Market on Saturday.

WARWICKSHIRE. This county at the time of the Roman invasion was occupied by two distinct tribes, whom the invaders denominated the Cornavii and the Wiccii, or Wigantes, or, according to Tacitus, the Jugantes. During the Hephtharchy, Warwickshire was part of the kingdom of Mercia, and the Saxons gave it the name of Weringesceyre, which signifies a station of soldiers. Warwickshire is an inland county, situated near the centre of the kingdom, in a north-west direction from London. It is bounded on the north-east by Leicestershire; on the south-east by Northamptonshire and Oxfordshire; on the south and west by Gloucestershire; on the west by Worcestershire; and on the north and west by Staffordshire; and, according to Cary's map, lies between lat.  $51^{\circ} 57' 30''$  and  $52^{\circ} 42' N.$ , and between long.  $1^{\circ} 7' 30''$  and  $1^{\circ} 56' 40'' W.$  from the observatory at Greenwich. The greatest length of the county is fifty-one miles and a quarter, from near Honey-hill in the north to Rollewright-stones in the south: and the greatest breadth from the eastern extremity of the county, about half a mile above the Northampton-road, to the western extremity at Headley-cross, is thirty six miles. The county contains, by Cary's map, 597,477½ acres, at the calculation of eighty chains statute measure to a mile; and is justly considered to be one of the most fertile and valuable counties in the kingdom. Although the city and county of Coventry is a distinct district from Warwickshire, yet, lying within the county of Warwick, it is proper to include them in this sketch. The city and county of Coventry lies in a north-east direction from Warwick, and is distant from it about ten miles and a quarter. It is bounded on every side by Warwickshire. The greatest length, from Bedworth to a point near Baggington, in a north-east and south-west direction, is seven miles and a half; and the greatest breadth, from Nettle-hill to Browns-hill-green, in the direction of Karesley-green, in about an east and west direction, is seven miles



and a quarter. The district contains in all about 18,161 acres. The county of Warwick is included in the midland circuit. It is divided into the four hundreds of Barlichway, Hemlingford, Kington, and Knightlow; the city and county of Coventry may be said to constitute a fifth hundred. It contains one city, thirteen market-towns, 200 entire parishes, and nine demi-parishes.

The climate of this county is generally esteemed mild and healthy. The inhabitants seem to be stout and robust, and, excepting in cases where the nature of their employment is injurious to health, live to an advanced age. The most general winds are from the south-west, and are usually accompanied with rain; but not unfrequently the effects of an easterly variation are felt to the middle of May; and it scarcely need be remarked that vegetation must, in consequence, suffer severely. Warwickshire, upon the whole, however, is not to be considered as subject to any particular excess of damp or frost. The soil extending from Rollewright-stones, on the borders of Oxfordshire, to Long Compton, Barton-on-the-heath, Foursire Stone, Woolford, Whichford, Weston, Cherington, Burmington, Brails-hill, and Barcheston, is mostly a strong clay loam on lime-stone. Thence to Barrow-hill, New St. Dennis, Idlicote, Whalcott, Halford, Pillerton-priors, Upper Eatington, Pillerton-Hersey, Butler's-Marston, Foss-Bridge, Combrook, Frix-Hall, and Compton Verney, is stronger clay on limestone rock; and so continues to near Walton House, and Warwick, and down to the east side of the Avon, by Barford, all the way to Charlcoth and Wellesbourn-Hastings. From Walton to Kington, with little exception, the soil is a very strong cold clay and poor. Descending the hill to Kington, a vale of land appears to begin at the Brails-hill, and stretches along by Ox Hill, Herd Hill, Kington, Owlington, Froghall, Warmington, and Shotteswell, to Gaydon and Knightcote, by Southam, Stockton, Leamington-Hastings, across the Leame River, to near Draycote. The soil about Kington is a strong clay loam, and continues this quality to within a mile of Radway, where it alters to a rich clay loam, and so remains through Mr. Millar's Park at Radway, to nearly the bottom of the tower that is built at Ratley: there the soil changes to a brown and light clay loam on limestone rock, which runs along this height to the borders of Oxfordshire, for nearly a mile in breadth. On descending the height near Warmington, the soil alters to a very rich clay loam, the surface all in rich old grass, extending across to North End. Thence the soil changes to a blue clay on a dark blue lime-stone, which continues to a mile beyond Gaydon, where the soil again changes to a light-colored clay on a light-colored lime-stone rock, until a near approach to Harwoods House, where it changes to a red clay loam. Within a short distance, in the direction towards Warwick, you reach a sandy red loam, which extends to about four miles north of Coventry. The Knightlow hundred, supposed to contain 173,714 acres, extends from Guy's Cliff, in an easterly direction, to the borders of Northamptonshire, and in a north-easterly direction to the borders of Leicestershire. A great proportion of this district is in tillage. From the borders of this hundred next Warwick to Leamington, Radford, Whitnesh, Tachbrook-Mallory, to the Fossway, Offchurch, Hunningham Hill, Wappenbury, Rington, Woolston, Church Lawford, Esser Hill, New-

bold Revel, Newnham Padox, Wilby, Wibtoft, Withybrooke, Stretton Baskerville, Brinklow, Combe, Old Lodge, Willenhall, Tinford, Baggington Hall, Baggington, Brook Bridge, Stoneleigh Park, Worsley Bridge, Finham Green, Canley, Fletchamsted Hall, Allesley Park, Alton Hall, Upper Green, West Wood, Kenilworth, Pedfen, Kenilworth Chase, Honily, Kenilworth Castle and Town, and Leek Wooton, to Warwick, the soil is mostly a red clay loam sand upon free-stone and lime-stone, and is in several places on good sharp gravelly bottom. From Harbury Heath to Bishop's Itchington, Old Itchington, Holmes House, Ladbrooke, Southam, Long Itchington, Stockton, Townlow, Leamington Hastings, extending easterly to the Oxford Canal, and across the Leame River to Draycote and Bourton, the soil is a strong clay loam on lime-stone rock. From Bourton to Thurleston, Dunchurch, Cock Robin, Hill-Morton, Rugby, and Bilton, the soil is light sandy land, in several places mixed with sharp gravel, well adapted for the turnip husbandry. From Rugby to Newbold-on-Avon, extending to Church-over and Bensford Bridge, the soil is a rich clay loam on lime-stone and marl. From Bensford Bridge, extending along the borders of the county to Highcross, Leicester Grange, and Stretton Bockerville, is a good strong clay soil. The city and county of Coventry, mostly bounded by the Knightlow hundred, is supposed to contain 18,162 acres. All around the town, for a considerable distance, is a very rich and deep sandy loam on marl and free-stone rock, most of which is in grass. The same kind of soil extends in a northerly direction by Karesley Green, Hall Hill and Newland Hall; in a northerly direction by Stoke, Wyhlen, Little Heath, Oxbury and Exhall Green, the soil is more intermixed with clay, and in several parishes strong land. From Corley to Fillongley and Bedworth, is a red sand and clay loam, in several places very poor. From Griff to Ashby-de-la-Zouch, Mount Pleasant, Nuneaton, Nuneaton Fields, Weddington Hall, Caldecote, Witherley, Atherstone, Whittington, Green House, Waverton, Bramcote, Austray, and Newton-in-the-Thistles, to Honeyshill, Seckington, Shutlington, Amington Hall, Amington, Polsworth, Wilnecote, Wigford, Baddesley, Ensor, and Baxterley, is a strong clay loam on marl. At Merevale the soil alters to a white-colored sandy clay on bastard iron-stone, extending in a southeasterly direction by Oldbury Hall, where the soil becomes very poor and barren. About Hunts Hall, Birchley Heath, Ridge Lane, and Baxterley Heath, there are many different kinds of soil, but all very poor. On descending from the high ridge by Old Hall, Baxterley Hall, Baxterley, and Kingsbury, the soil alters very much from a sandy loam to a red clay and marl, and to a moorish white and yellow clay on clay and marl. On crossing the Coles-hill River the soil alters to a light dry sharp gravel, for about a mile, when it changes to a poor barren white sandy moorish soil; lies low and wet, and so continues north and south along the Birmingham Canal for a considerable way, and about two miles in breadth. From the west side of Bodymoor to Middleton, Hunts Green, Ash End, Canwell Gate, Sutton, Moorhall, Sutton Coldfield, and Berwood Common, the soil varies much, and is in general very poor and moorish. On crossing the Tame, opposite Castle Bromwich, the poor barren moorish light soil gives way to a good red clay



loam, and extends east by Coleshill, and west by Birmingham, on both sides of the Tame. At Castle Bromwich the meadows on each side of the river are of a dark-colored earth, continuing more or less so to Aston. About Aston, Hackley Brook, and Birmingham, is a dry, light, sandy, red soil. From Sheldon and Wells Green, to Elmdon, Bickenhill, Hampton-in-Arden, Solihull, Barston, Balsall Street, Balsall, Cuttlebrook, Knowle, Monkspath Bridge, Waring Green, Sadler's Bridge, and Beaumont Hill, is principally a strong marl clay land on a wet clay bottom. From Stone Bridge Inn, on the road from Coventry to Birmingham, and Little Packington; extending northward, and from Great Packington to Meriden, extending south and east, the soil is a dry sandy loam. At and above lord Aylesford's park, extending in the direction of Whitacre, there is a tract of very poor wet-bottomed land; from Meriden to Terkswell and Barton Green the soil improves, and all in the direction of Kenilworth and Warwick is of a red sand and clay loam. From Warwick to Canoway Gate, Pindley Abbey, Lye-green, Preston Baggot, Clark's Green, Ipsley, Studley, Shelfield Wootton, Kinwarton, Alcester, Itagley, Woodchurch, Priors Salford, Arden's, Grafton, Alcock's Harboure, Copmass Hill, Aston, Cantlow, Hermitage, Wilncote, and Drayton, the soil in general is a strong clay loam on marl and lime-stone rock. From Atherstone to Stratford-on-Avon, in the direction of Wellesbourn, Tidington, Alverston, Hampton Lucy, and Sherborne, is all fine dry red clay loam and sandy loam, mostly in tillage. In the strath of the Avon the soil is equal to that of any county in England. About two miles from Meerhill, in the direction of Loxley, the soil is a strong clay loam, and good wheat and bean land. On the whole, almost every species of soil is to be met with, except what is incorporated with chalk and flint. The principal rivers running through the county of Warwick are the Avon and Tame. The Avon rises in Leicestershire, enters Warwickshire at Bensford Bridge, and runs in a serpentine form in a south-west direction by Warwick, Stratford-on-Avon, and Bitford, and leaves the county a little below Abbots' Salford. In its course it receives the Dove River a little below Brownover; the Leame a little above Warwick; the Stour about a mile and a half below Stratford; and the Alne about half a mile below Prior's Salford; it also receives several smaller streams, proceeding in the same direction through Worcestershire, and falls into the Severn at Tewkesbury in Gloucestershire. The Tame and the Rea rise in Worcestershire, and are joined by two small rivulets, one rising north-west from Birmingham, the other rising north from Upper Wilton between Castle Bromwich and Birmingham, where it receives the name of the Tame. It continues its course through the north-west part of the county, in a north-east and northerly direction, and receives the Cole, Blythe, Bourne, and Anker, which rise near Shilton, and there takes its course by Nuneaton, Witherley, Polesworth, Amington, and Tamworth, where it leaves the county. There are besides many sluggish streams of no note. The county is well supplied with good wholesome water, where it comes from the limestone. The mineral water at Leamington has so much increased in repute, that this place, once a small village, has in consequence been greatly enlarged, and begins to assume the appearance of a

town. It has become the resort of families of distinction; and the water having obtained the character of possessing all the qualities of that of Cheltenham, with superior effects, it is supposed by many that Leamington, having the advantage of good roads, and a finer country, will soon rival Cheltenham. On the north bank of the Avon River, in the Rugby division, and in the parish of King's Newnham, there is a considerable spring, which flows from beneath a limestone rock, where a bath is established. Warwickshire sends ten members to parliament, viz., four for the county, two for Warwick, two for Coventry, and two for Birmingham.

Of the worthies of Warwickshire we can only particularise Edward Cave, the bookseller, who was born at Newton in 1691. He deserves particular notice for having been the projector and original proprietor of the Gentleman's Magazine, commenced in the year 1731.—Samuel Clarke, one of the two thousand ejected ministers, and author of several works, particularly Lives of Eminent persons, &c., was born at Woolston about the year 1599 and died in 1682. His son Samuel was the author of a Commentary on the Bible.—Michael Drayton, a poet of some note, but whose metre of twelve syllables is now antiquated and disregarded, was born at Hartshull in 1563. His principal work is the Poly-Olbion, by which title he designates England, the ancient name of Albion being by some derived from Olbion, a Greek word signifying happy—Poly-olbion very happy.—Sir Thomas Overbury, who fell a victim to the cruelty of that unprincipled nobleman, Carr, earl of Somerset, was born at Compton Scorefen in 1681. This unfortunate man's history is too long and too interesting for such an abridgement as we can afford. He was poisoned in the Tower, by the contrivance of Somerset and his wife, in the year 1613. He was an elegant scholar, and wrote several pieces in prose and verse. William Shakspeare, the immortal dramatist, born at Stratford-upon-Avon in 1564, and died in the year 1616.—Sir William Dugdale, the celebrated historian and antiquary, was born near Coleshill in 1605; and died in 1686. His principal works are the Monasticon Anglicanum, and The Antiquities of Warwickshire Illustrated—William Somerville, author of The Chase, a poem, was born in the year 1692 and died in 1743.—Francis Willughby, an eminent naturalist, the intimate friend of Ray, was born in 1635. Died in 1672.

Warwickshire is a great manufacturing county. The hardware of Birmingham, particularly the celebrated works of Messrs. Bolton and Watt, are known all over Europe; as are also the silk works of Coventry. Here also are manufactures of worsted and hosiery; also of various kinds of cotton goods. Nails, pins, and needles, are also made in this county.

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|-------------------------|--|
| WARY, <i>adj.</i>       | } Sax. <i>pæp.</i> Cautious; scrupulous: the adverb and noun |
| W'ARILY, <i>adv.</i>    |  |
| W'ARINESS, <i>n. s.</i> |  |

substantive corresponding.

The charge thereof unto a courteous sprite  
Commended was, who thereby did attend,

And warily awaited day and night,  
From other covetous fiends it to defend.

*Spenser.*

He is above, and we upon earth; and therefore it becometh our words to be wary and few.

*Hooker.*

So rich a prize could not so warily be fenced but that Portugals, French, English, and now of late the Low Countrymen, have laid in their own barns part of the Spaniards' harvest.

*Heylyn.*



Each warns a *warier* carriage in the thing,  
Lest blind presumption work their ruining. *David.*

To determine what are little things in religion, great  
*wariness* is to be used. *Sprat's Sermons.*

It will concern a man to treat conscience awfully  
and *warily*, by still observing what it commands, but  
especially what it forbids. *South's Sermons.*

Others grow *wary* in their praises of one, who sets  
too great a value on them, lest they should raise him  
too high in his own imagination. *Addison's Spectator.*

I look upon it to be a most clear truth; and expressed  
it with more *wariness* and reserve than was necessary.  
*Atterbury.*

WASH, *v. a., v. n., & n. s.* Sax. *parcan*; Teut.

WASH'BALL, *n. s.*

WASH'ER,

WASH'POT.

WASH'Y, *adj.*

wet; color by washing: to perform the act of ablution;  
cleansing clothes: a wash is only applied to  
color superficially; a cosmetic; alluvion; bog;  
marsh; a quantity of linen washed at once: the compounds  
seem to require no explanation.

Wash me thoroughly from mine iniquity, and cleanse  
me from my sin. *Psalms li. 2.*

Be baptized, and wash away thy sins. *Acts xxii. 16.*

How fain, like Pilate, would I wash my hands

Of this most grievous guilty murder done!

*Shakspeare. Richard III.*

She can wash and scour. *Id. Gent. of Verona.*

Full thirty times hath Phœbus' car gone round

Neptune's salt wash, and Tellus' orb'd ground.

*Shakspeare.*

Quickly is his laundress, his washer, and his wringer.

*Id.*

Try whether children may not have some wash to  
make their teeth better and stronger. *Bacon's Nat. Hist.*

A polish of clearness, evenly and smoothly spread,  
not over thin and *washy*, but of a pretty solid consist-  
ence. *Wotton.*

Sins of irreligion must still be so accounted for, as  
to crave pardon, and be washed off by repentance.

*Taylor.*

Behold seven comely blooming youths appear,

And in their hands seven golden washpots bear.

*Cowley.*

On the *washy* ooze deep channels wore,  
Easy ere God had bid the ground be dry. *Milton.*

He tried all manner of washes to bring him to a better  
complexion; but there was no good to be done.

*L'Estrange.*

The wash of pastures, fields, commons, and roads,  
where rainwater hath a long time settled, is of great  
advantage to all land. *Mortimer's Husbandry.*

To wash over a coarse or insignificant meaning, is to  
counterfeit nature's coin. *Collier of the Aspect.*

To steal from rainbows, ere they drop in showers,

A brighter wash. *Pope's Rape of the Lock.*

Here gallypots and viols placed,

Some filled with washes, some with paste. *Swift.*

I asked a poor man how he did; he said he was like  
a washball, always in decay. *Id.*

Recollect the things you have heard, that they may  
not be washed all away from the mind by a torrent of  
other engagements. *Watts.*

WASHING, in painting, is when a design, drawn  
with a pen or crayon, has some one color laid over  
it with a pencil, as Indian ink, bistre, or the like,  
to make it appear the more natural, by adding the  
shadow of prominences, apertures, &c., and by  
imitating the particular matters whereof the thing  
is supposed to consist.

WASHINGTON (George), the founder of the  
freedom of the United States of America, and the  
first president of that congress which laid the founda-

tion of their union, was born on the 11th of February, 1732, O. S., in the parish of Washington, Virginia. He was descended from an ancient family in Cheshire, of which a branch had been established in Virginia about the middle of the seventeenth century. The earl of Buchan assures us that this 'ancient English family was allied to those of Fairfax and Ferrers, and many others of the highest order, as abundantly appears from public records, and his mother's more immediately from that most ancient Saxon family of Fairfax, of Towcester in Northumberland, and of Walton and Gilley in Yorkshire, now represented by those of Fitzwilliam and Buchan, by which means the family of general Washington came to possess the lands of Mount Vernon, in Fairfax county in Virginia, which came in dower by a daughter of that house from whom he was descended.' His classical instruction was such as the private tutor of a Virginian country gentleman could at that period impart. But before he was twenty he was appointed major in the colonial militia, and he had very early occasion to display those political and military talents of which the exertions on a greater theatre have since made his name so famous throughout the world. In the disputes which arose between the French and English officers, on the subject of the boundaries of the English and French territories in America, major Washington was employed by the governor of Virginia in a negotiation with the French governor of Fort du Quesne (now Pittsburgh), who threatened the English frontiers with a body of French and their Indian allies. He succeeded in averting the invasion; but hostilities becoming inevitable, he was in the next year appointed lieutenant-colonel of a regiment raised by the colony for its own defence, to the command of which he soon after succeeded. The unfortunate expedition of Braddock followed in 1755. Colonel Washington served in that expedition only as a volunteer; but such was the general confidence in his talents that he may be said to have conducted the retreat. After having acted a distinguished part in a subsequent and more successful expedition to the Ohio, he was obliged, by ill health, in 1758, to resign his commission. The sixteen years which followed afford few materials for the biographer. Having married Mrs. Custis, a Virginian lady of amiable character and respectable connexions, he settled at his beautiful seat of Mount Vernon; where, with the exception of such attendance as was required by his duties as a magistrate and a member of the assembly, his time was occupied by his domestic enjoyments and the cultivation of his estate. At the commencement of the unfortunate differences between Britain and America, Mr. Washington was sent as a delegate from Virginia to the Congress which met at Philadelphia on the 26th of October, 1774. He was appointed to the command of the army which had assembled in the New England provinces, to hold in check the British army then encamped under general Gage at Boston, and he took upon himself the command of that army in July, 1775. To detail his operations in the years which followed would be to repeat the history of the American war. Within a very short period after the declaration of independence, the affairs of America were in a condition so desperate that perhaps nothing but the peculiar character of Washington's genius could have retrieved them. The issue of the contest is



known. The magnanimity of Washington during the ravages of civil war, in which he acted so conspicuous a part, has been much and justly celebrated. The unfortunate case of major André can hardly be urged as an exception. His acting as a spy justified his punishment. The conclusion of the American war permitted Washington to return to those domestic scenes from which no views of ambition seem to have had the power to draw his affections. As a genuine proof of his patriotism he would receive no pay for eight years' service, but defrayed his expenses during the war, out of his private purse. But he was not allowed long to enjoy this privacy. To remedy the distress into which the country had been thrown by the war a convention of delegates was assembled at Philadelphia, which strengthened the bands of the federal union, and bestowed on congress those powers which were necessary for good government. Washington was the president; and in three years after he was elected president of the United States of America under the new constitution. During his chief magistracy the French revolution took place, which convulsed the whole political world, and which tried most severely his moderation and prudence. Washington, as a virtuous man, must have abhorred the crimes committed in France. But, as the first magistrate of the American commonwealth, he was bound only to consider how far the interest and safety of the people whom he governed were affected by the conduct of France. He saw that it was wise and necessary for America to preserve a good understanding and a beneficial intercourse with that great country, in whatever manner she was governed, as long as she abstained from committing injury against the United States. Guided by this just and simple principle, uninfluenced by the abhorrence of crimes which he felt, he received Mr. Genet the minister of the French republic. The history of the outrages which that minister committed, or instigated, or countenanced, against the American government must be fresh in the memory of all our readers. The conduct of Washington was a model of firm and dignified moderation. Insults were offered to his authority in official papers, in anonymous libels, by incendiary declaimers, and by tumultuous meetings. The law of nations was trampled under foot. His confidential ministers were seduced to betray him, and the deluded populace were so inflamed by the arts of their enemies, that they broke out into insurrection. No vexation, however galling, could disturb the tranquillity of his mind, or make him deviate from the policy which his situation prescribed. During the whole course of that arduous struggle, his personal character gave that strength to a new magistracy which in other countries arises from ancient habits of obedience and respect. The authority of his virtue was more efficacious for the preservation of America than the legal powers of his office. During this turbulent period he was re-elected to the office of the presidency of the United States, which he held from April, 1789, till September, 1796. Throughout the whole course of his second presidency the danger of America was great and imminent. The spirit of change, indeed, at that period shook all nations. But in other countries it had to encounter ancient and solidly established power; it had to tear up by the roots long habits of attachment in some nations for their government; of awe in others; of acquiescence

and submission in all. But in America the government was new and weak. The people had scarcely time to recover from the feelings of a recent civil war. Washington employed the horror excited by the atrocities of the French revolution for the most honest and praiseworthy purposes; to preserve the internal quiet of his country; to assert the dignity, and to maintain the rights, of the commonwealth which he governed against foreign enemies. He avoided war without incurring the imputation of pusillanimity. He cherished the detestation of Americans for anarchy without weakening the spirit of liberty; and he maintained, and even consolidated, the authority of government without abridging the privileges of the people. The resignation of Washington, in 1790, was a measure of prudence as well as of patriotism. From his resignation till July 1798 he lived in retirement at Mount Vernon. At this latter period it was no longer possible to submit to the accumulated insults and injuries America was receiving from France, and the United States resolved to arm by land and sea. The command of the army was bestowed on general Washington. In this office he continued during the short period of his life which still remained. On Thursday the 12th of December, 1799, he was seized with an inflammation in his throat, which became considerably worse the next day, and of which, notwithstanding the efforts of his physicians, he died on Saturday the 14th of December, 1799, in the sixty-eighth year of his age.

WASHINGTON, a county on the east side of Maine, bounded on the east by New Brunswick, on the south by the Atlantic, and on the west by Hancock and Penobscot counties. Chief towns, Machias and Eastport.

WASHINGTON, a post town, the capital of Washington county, Pennsylvania, on the head branches of Chartier's Creek: twenty-five miles south-west of Pittsburg, twenty-five W. N. W. of Brownsville, and thirty-two E. N. E. of Wheeling. It is a flourishing town, and contains a court-house, a jail, two banks, two printing-offices, a college, a very large steam flour mill, various other public buildings and manufacturing establishments, and about 400 dwelling houses. It is situated in a fertile, well cultivated, but broken country. Washington College was established a few years later than the college at Canonsburg. It has a large stone edifice of three stories, for the accommodation of students. The library and philosophical apparatus are valuable. The officers are a president and two professors, one of languages and one of mathematics and natural philosophy. The number of students, in 1817, was about 100, a great part of whom were pursuing studies preparatory to the collegiate course. Commencement is held on the fourth Wednesday or Thursday in September, after which there is a vacation till the 1st of November. The course of collegiate education is completed here in three years.

WASHINGTON, the metropolis of the United States, in the district of Columbia, is situated in long. 1° 52' W. of Philadelphia, 77° 2' W. of Greenwich, and 79° 22' W. of Paris; lat. 38° 58' N. The city of Washington became the seat of the national government in 1800. It is built on the Maryland side of the Potomac, 295 miles by the course of the river and bay, from the Atlantic, on a point of land between the Eastern Branch and the Potomac; and its site, as laid out, extends two or



three miles up each of these rivers. It is separated from Georgetown by Rock Creek, over which are two bridges, and there is a bridge over the Potomac more than a mile in length, leading to Alexandria. A canal is constructed from the Potomac, passing up the Tiber, a small stream which flows through Washington, and then across the plain of the city to the Eastern Branch, forming a communication between the two rivers.

The natural situation of Washington is pleasant and salubrious; and it is laid out on a plan which, when completed, will render it one of the handsomest and most commodious cities in the world. It is divided into squares by spacious streets or avenues, running north and south, intersected by others at right angles; these are crossed transversely by fifteen other spacious streets, or avenues, named after the different states. The rectangular streets are designated by the letters of the alphabet and by numbers. The grand avenues, and such streets as lead immediately to public places, are from 130 to 160 feet wide; the other streets are from ninety to 110 feet wide. A very small part of the plan only is as yet completed. The buildings, which cover but a small portion of the site as laid out, stand in four or five separate divisions; and Washington at present exhibits the appearance, not of one regular city, but of a collection of villages, in which the splendid edifices appear of a disproportionate grandeur. About three-fourths of the buildings are of brick, and there are some elegant private mansions.

The principal public buildings and institutions in the city are the Capitol, the president's house, the buildings for the great departments of the national government, the General Post office, the navy yard, extensive barracks for the marine corps, a jail, a theatre, a public library, four banks (including a branch of the United States' bank), and ten houses of public worship, two for Presbyterians, two for Episcopalians, two for Baptists, two for Methodists, one for Catholics, and one for Friends. The Capitol is situated on an eminence, commanding a beautiful prospect of the Potomac, of every part of the city, and of a wide extent of the surrounding country. It is surrounded by an elegant iron railing, enclosing a large extent of ground, which is planted with various kinds of trees and shrubs. The two wings only have yet been erected. They are each 100 feet square, and are to be connected by a well-proportioned centre. The foundation of the central part has recently been laid, and the Capitol is now in rapid progress, and is finishing in a style of elegance and grandeur worthy of a nation of great resources. It is built of white freestone, and when completed will be a most magnificent edifice, presenting a front of 362 feet. The president's house is situated on a gentle elevation about a mile and a half west of the Capitol, and is built of the same kind of stone. It is a very elegant edifice, 170 feet by eighty-five, of two stories, with a suitable basement story. The buildings which contain the offices for the great departments of government consist of four spacious brick edifices of two stories, situated at a small distance from the president's house. In these buildings are kept the papers, records, archives, and offices of the departments of state, of the treasury, of war, and of the navy. The General Post-office is a large brick edifice, situated about a mile W. N. W. of the Capitol, and contains, besides the various

offices belonging to the post-office establishment the general land office; the patent office, where are deposited all the models of inventions for which patents have been granted, forming a very extensive and curious collection; and a temporary library room for the national library, purchased, in 1815, of the honorable Thomas Jefferson, late president of the United States, and consisting of about 8000 volumes. The navy yard is situated on the Eastern Branch, which forms a safe and commodious harbour, being sufficiently deep for large ships about four miles from its mouth.

On the 24th of August, 1814, this city was taken by the British, who burnt the public edifices, not sparing even the national library. All these edifices are now rebuilt and repaired, except the Capitol. The foundation of the centre of the Capitol was laid on the 24th of August, 1818, just four years after the conflagration. It is expected that it will be completed in four years: earlier, probably, than it would have been, but for the visit of the British. This event has tended greatly to increase the prosperity of the city, the national pride having been excited not only to rebuild what was destroyed, but to complete what was unfinished.

This is likewise the name of many post-towns and counties of the United States.

**WASHINGTON ISLANDS.** The group called Washington Islands, was discovered in the year 1791 by captain Ingraham from Boston, in a voyage from the Mendoza Islands to the north-west of that continent. They were also seen a few weeks after by M. Marchand, in the French ship *Le Solide*, who considered them as previously unknown, and called them *Isles de la Revolution*. In the following year they were again seen by lieutenant Hergest of the British navy, and captain Brown, the master of a merchant ship belonging to the same nation. The last of their discoverers was captain Roberts, of the American ship *Jefferson*, who fell in with them in 1793. Ingraham had conferred the name of Washington upon Uahuga, and Roberts now gave the same appellation to the whole group.

Washington Islands lie north-east of the Marquesas, and are eight in number, stretching from 9° 30' to 7° 50' of S. lat., and from 139° 5' to 140° 13' W. long. These islands are the following: viz. Nukahiva, which is the chief island of the group, from its being about seventeen miles long. Uahuga is the most easterly island, and its extreme length nine miles. Uapoa lies farther south. At the distance of about a mile and a half from Uapoa there is a small flat island, about two miles in circumference, which Marchand called *Isle Platte*. Thirty-three miles nearly north-west of the southern extremity of Nirkahuwa lie the two small uninhabited islands of Mottuaiti, which are separated from each other by a channel about a mile broad. The inhabitants of the other islands occasionally visit them in their fishing expeditions, but they never undertake this voyage without being impelled to it by necessity, as the imperfect construction of their canoes renders it dangerous. Hiaua and Fat-tuuhu are the other two islands, which are situated about thirty miles nearly north from the west end of Nukahiva. Krusenstern describes the inhabitants of this group as indisputably the handsomest in the South Seas. The men are all stout and well made, possessing great regularity of features, and strongly marked by an air of real goodness. Their

complexions in a natural state are but a little darker than those of Europeans, though rendered almost black by tattooing.

WASP, *n. s.* } Sax. *weap*; Lat. *vespa*; Fr.

WASPISH, *adj.* } *guespe*. A brisk stinging insect, in form resembling a bee: waspish is malignant; peevish; irascible.

More wasps, that buz about his nose,

Will make this sting the sooner. *Shakespeare.*

Come, you wasp, you are too angry,

—If I be waspish, best beware my sting. *Id.*

Encountering with a wasp,

He in his arms the fly doth clasp. *Drayton.*

The tailor's wife was only a good hearty shrew, under the impotency of an unruly waspish humour: she would have her will. *L'Estrange.*

Much do I suffer, much, to keep in peace

This jealous waspish, wrong-head, rhiming race. *Pope.*

WASSAIL, *n. s.* } From Sax. *weap-hæl*, your

WASSAILER. } health. An ancient English liquor made of apples, sugar, and ale: drunken bout: he who revels in such bouts.

The king doth wake to-night, and takes his house, Keeps wassail, and the swaggering upspring reels.

*Shakespeare.*

I'm loth to meet the rudeness and swill'd insolence Of such late wassailers. *Milton.*

WASSOTA, a celebrated fortress of Hindostan, in Bejapore, and in the district of the Concan. There are two forts about 1000 yards from each other, both situated on rocks nearly perpendicular, and 3000 feet high. The adjacent scenery is of the grandest description. In April, 1818, a British force, accompanied by the rajah, laid siege to it, and, notwithstanding its great strength, such was the effect of the British shells, that the governor capitulated in a few days, and delivered up the ladies in safety, along with the family jewels, to the amount of several lacks of rupees.

WASTE, *v. a., v. n., adj., &* Sax. *apertan*;

WASTEFUL, *adj.* [ *n. s.* ] Teutonic waste;

WASTEFULLY, *adv.* Belgic *woesten*;

WASTEFULNESS, *n. s.* Italian *guastare*;

WASTER. Latin *vastare*. To

diminish; consume; squander; desolate; wear out: as a verb neuter, to dwindle; be consumed: as an adjective, destroyed; useless; superfluous. as a noun substantive, wanton or luxurious consumption or destruction; loss; mischief; desolate or useless ground: the adjective, adverb, and noun substantives following, correspond.

He found him in a desert land, and in the waste howling wilderness. *Deut. xxii. 10.*

Man dieth and wasteth away. *Job, xiv. 10.*

In wilderness and wasteful deserts strayed, To seek her knight. *Spenser.*

Reasons induce us to think it a good work, which they, in their care for well-bestowing of time, account waste. *Hooker.*

These gentlemen, on their watch, In the dead waste and middle of the night, Had been thus encountered. *Shakespeare.*

The fire that mounts the liquor till 't runs o'er, Seeming t' augment it, wastes it. *Id.*

In such cases they set them off more with wit, and activity, than with costly and wasteful expences. *Bacon.*

Thin air is better pierced, but thick air reserves the sound better from waste. *Id.*

Divers Roman knights,

The profuse wasters of their patrimonies, So threaten with their debts, as they will now Run any desperate fortune. *Ben Jonson.*

He only their provisions wastes and burns. *Daniel.*  
Outrageous as a sea, dark, wasteful, wild. *Milton.*

Forty days Elijah, without food,

Wandered this barren waste. *Id.*

Lords of the world's great waste, the ocean, we Whole forests send to reign upon the sea. *Waller.*

Could sighs furnish new breath, or draw 'life and spirits from the wasting of yours, your friends would encourage your passion. *Temple.*

From that dire deluge, through the wat'ry waste, Such length of years, such various perils past. *Dryden.*

The latter watch of wasting night,

And setting stars, to kindly sleep invite. *Id.*

The multiplication and obstinacy of disputes, which have so laid waste the intellectual world, is owing to nothing more than to the ill use of words. *Locke.*

Plenty in their own keeping makes them wanton and careless, and teaches them to be squanderers and wasters. *Id.*

It was providently designed to repair the waste daily made by the frequent attrition in mastification. *Ray.*

How has kind heaven adorned the happy land, And scattered blessings with a wasteful hand! *Addis.*

When thus the gathered storms of wretched love, In my swoll bosom, with long war had strove, Laid all the civil bonds of manhood waste,

And scattered ruin as the torrent past. *Prior.*

The patient is much wasted and enfeebled; and he is the more so, because in this confined state of the distemper there is generally a great dejection of appetite. *Blackmore.*

See the man, who spacious regions gave

A waste for beasts, himself denied a grave. *Pope.*

Secure the workings of your soul from running to waste, and even your looser moments will turn to happy account. *Watts.*

WASTREL, *n. s.* From waste. Defined below.

Their works, both stream and load, lie in several or in wastrel, that is, in inclosed grounds or in commons. *Carew.*

WATCH, *n. s., v. n., &* Sax. *wæcce*; Teut.

WATCHER, *n. s.* [ *v. a.* ] *wacht*; Swed. *wakt*.

WATCHFUL, *adj.* Forbearance of sleep;

WATCHFULLY, *adv.* attendance or guard

WATCHFULNESS, *n. s.* involving such forbearance; vigilance;

WATCH-HOUSE, place, post, office, or

WATCH'ING, sphere of a guard;

WATCH'-MAKER, a man on guard;

WATCH'MAN, period of the night;

WATCH'-TOWER, a pocket clock: to

watch is, to wake; forbear sleep; be vigilant, attentive, or observing: as a verb active, to guard; have in keep; tend; observe: the derivatives and compounds are of obvious meaning.

My soul waiteth for the Lord, more than they that watch for the morning. *Psaln cxxx. 6.*

Saul sent ministers unto David's house to watch him and to slay him. *1 Sam. xix. 11.*

I will watch over them for evil, and not for good. *Jer. xlv.*

Be watchful, and strengthen the things ready to die. *Rev. iii.*

A watchword every minute of the night goeth about the walls, to testify their vigilancy. *Sundya.*

Before her gate high God did sweat ordain,

And wakeful watches, ever to abide. *Spenser.*

Still, when she slept, he kept both watch and ward. *Id.*

We have heard the chimes at midnight, master Shal

low.

—That we have, Sir John: our watchword, hem! boys. *Shakespeare.*



Get on your night-gown, lest occasion call us,  
And shew us to be *watchers*. *Id.*  
Call home our exiled friends,  
That fled the snares of *watchful* tyranny. *Id.*  
Hie thee to thy charge;  
Use careful *watch*, chuse trusty centinels. *Id.*  
Turn him into London streets, that the *watchmen*  
might carry him before a justice. *Bacon.*  
Love can find entrance not only into an open heart,  
but also into a heart well fortified, if *watch* be not well kept. *Id.*

Up unto the *watchtower* get,  
And see all things despoiled of fallacies. *Donne.*  
When by God's mercy in Christ, apprehended by  
faith, our hearts shall be purified, then to set *watch* and  
ward over them, and to keep them with all diligence. *Perkins.*

The experience of our own frailties, and the considera-  
tion of the *watchfulness* of the tempter, discourage us. *Hammond.*  
*Watch* over thyself, counsel thyself, judge thyself  
impartially. *Taylor.*

All night he will pursue; but his approach  
Darkness defends between, till morning *watch*. *Milton.*  
Sleep, listening to thee, will *watch*. *Id.*  
A *watch*, besides the hour of the day, gives the day  
of the month, and the place of the sun in the zodiac. *Hale.*

He is bold, and lies near the top of the water, *watch-*  
ing the motion of any water-rat that swims betwixt  
him and the sky. *Walton.*  
It is observed by those that are more attentive *watchers*  
of the works of nature. *More.*

Nodding a while, and *watchful* of his blow,  
He fell; and falling crushed the ungrateful nymph be-  
low. *Dryden.*

Readers should not lay by that caution which be-  
comes a sincere pursuit of truth, and should make them  
always *watchful* against whatever might conceal or mis-  
represent it. *Locke.*

Smithing comprehends all trades which use *forge* or  
file, from the anchor-smith to the *watchmaker*; they all  
using the same tools, though of several sizes. *Moxon.*

An absurdity our Saviour accounted it for the blind  
to lead the blind, and to put him that cannot see to the  
office of a *watch*. *South.*

All the long night their mournful *watch* they keep,  
And all the day stand round the tomb and weep. *Addison.*

Love, fantastick power! that is afraid  
To stir abroad till *watchfulness* be laid,  
Undaunted then o'er cliffs and valleys strays,  
And leads his vot'ries safe through pathless ways. *Prior.*

Husbands are counselled not to trust too much to  
their wives owning the doctrine of unlimited conjugal  
fidelity, and so to neglect a due *watchfulness* over their  
manners. *Arbutnot.*

The bullet, not having been extracted, occasioned  
great pain and *watchings*. *Wiseman's Surgery.*  
The melancholy tune of a *watchman* at midnight. *Swift.*

Prejudices are cured by a constant jealousy and  
*watchfulness* over our passions, that they may never  
interpose when we are called to pass a judgment. *Watts.*

*WATCH*, in the art of war, a number of men  
posted at any passage, or a company of the guards  
who go on the patrolle.

*WATCH*, in the navy, the space of time wherein  
one division of a ship's crew remains upon deck  
to perform the necessary services, whilst the rest  
are relieved from duty, either when the vessel is  
under sail or at anchor. The length of the sea-  
watch is not equal in the shipping of different  
nations. It is always kept four hours by our

British seamen, if we except the dog-watch, be-  
tween 4 and 8 P. M., that contains two reliefs, each  
of which are only two hours on deck. The intent  
of this is to change the period of the night watch  
every twenty-four hours; so that the party watch-  
ing from eight till twelve in one night, shall watch  
from midnight till 4 A. M. on the succeeding one.  
In France the duration of the watch is, or was,  
extremely different, being in some places six hours,  
and in others seven or eight; and in Turkey and  
Barbary it is usually five or six. A ship's com-  
pany is usually classed into two parties, one of  
which is called the starboard, and the other the  
larboard watch; it is, however, occasionally sepa-  
rated into three divisions, as in a road or in par-  
ticular voyages. In a ship of war the watch is  
generally commanded by a lieutenant, and in mer-  
chant ships by one of the mates; so that, if there  
are four mates in the latter, there are two in each  
watch; the first and third being in the larboard,  
and the second and fourth in the starboard watch;  
but in the navy, the officers who command the  
watch usually divide themselves into three parties,  
to lighten their duty.

*WATCH* is also used for a small portable move-  
ment or machine for the measuring of time, having  
its motion regulated by a spiral spring. Watches,  
strictly taken, are all such movements as show the  
parts of time; as clocks are such as publish it by  
striking on a bell, &c. But commonly the name  
watch is appropriated to such as are carried in the  
pocket, and clock to the large movements, whether  
they strike the hour or not. See *CLOCK*.

*WATCH WORK*. The regulator of a clock or  
watch is a pendulum or a balance. Without this  
check to the motion of the wheels, impelled by a  
weight or a spring, the machine would run down  
with a motion rapidly accelerating, till friction and  
the resistance of the air induced a sort of unifor-  
mity, as they do in a kitchen jack. But if a pen-  
dulum be so put in the way of this motion, that  
only one tooth of a wheel can pass it at each vibra-  
tion, the revolution of the wheels will depend on  
the vibration of the pendulum. This has long been  
observed to have a certain constancy, insomuch  
that the astronomers of the east employed pendu-  
lums in measuring the times of their observations,  
patiently counting their vibrations during the  
phases of an eclipse or the transits of the stars, and  
renewing them by a little push with the finger when  
they became too small. Gassendi, Riccioli, and  
others, in more recent times, followed this example.  
The celebrated physician Sanctorius is the first  
person who is mentioned as having applied them  
as regulators of clock movements. Machines,  
however, called clocks, with a train of toothed  
wheels, leading round an index of hours, had been  
contrived long before. The earliest of which we  
have any account is that of Richard of Wallingford,  
abbot of St. Alban's, in 1326. It appears to have  
been regulated by a fly like a kitchen jack. Not  
long after this, James Dondi made one at Padua,  
which had a motus successorius, a hobbling or  
trotting motion; from which expression it seems  
probable that it was regulated by some alternate  
movement. We cannot think that this was a pen-  
dulum, because; once it was introduced, it never  
could have been supplanted by a balance. Gali-  
leo proposed the pendulum, about the year 1600.  
Pendulum clocks then came into general use, and  
were found to be greatly preferable to balance



clocks, as accurate measurers of time. Mathematicians saw that their vibrations had some regular dependence on uniform gravity, and in their writings we meet with many attempts to determine the time and demonstrate the isochronism of the vibrations. Riccioli, Gassendus, and Galileo, made similar attempts to explain the motion of pendulums, but without success. This honor was reserved for Mr. Huyghens, the most elegant of modern geometers. He had succeeded in 1656 or 1657 in adapting the machinery of a clock to the maintaining of the vibrations of a pendulum. Charmed with the accuracy of its performance, he began to investigate with scrupulous attention the theory of its motion. By the most ingenious and elegant application of geometry to mechanical problems, he demonstrated that the wider vibrations of a pendulum employed more time than the narrower, and that the time of a semicircular vibration is to that of a very small one nearly as thirty-four to twenty nine; and aided by a new department of geometrical science invented by himself, viz. the evolution of curves, he showed how to make a pendulum swing in a cycloid, and that its vibrations in this curve are all performed in equal times, whatever be their extent. But before this time Dr. Hooke, the most ingenious and inventive mechanician of his age, had discovered the great accuracy of pendulum clocks, having found that the manner in which they had been employed had obscured their real merit. They had been made to vibrate in very large arches, the only motion that could be given them by the contrivances then known; and in 1656 he invented another method, and made a clock which moved with astonishing regularity. Using a heavy pendulum, and making it swing in very small arches, the clocks so constructed were found to excel Mr. Huyghens's cycloidal pendulums. It has been found that the unavoidable inaccuracies, even of the best artists, in the cycloidal construction, make the performance much inferior to that of a common pendulum vibrating in arches which do not exceed three or four degrees from the perpendicular. Such clocks alone are now made, and they exceed all expectation. We have said that a pendulum needed only to be removed from the perpendicular, and then let go, in order to vibrate and measure time. Hence it might seem that nothing is wanted but a machinery so connected with the pendulum as to keep a register, as it were, of the vibration. It could not be difficult to contrive a method of doing this: but more is wanted. The air must be displaced by the pendulum. This requires some force, and must therefore employ some part of the momentum of the pendulum. The pivot on which it swings occasions friction—the thread or thin piece of metal by which it is hung, in order to avoid this friction, occasions some expenditure of force by its want of perfect flexibility or elasticity. These, and other causes, make the vibrations grow more and more narrow by degrees, till at last the pendulum is brought to rest. We must therefore have a contrivance in the wheel-work which will restore to the pendulum the small portion of force which it loses in every vibration. The action of the wheels therefore may be called a maintaining power, because it keeps up the vibrations. But we now see that this may affect the regularity of vibration. If it be supposed that the action of gravity renders all the vibrations isochronous, we must grant that the additional impulsion by the wheels

will destroy that isochronism, unless it be so applied that the sum total of this impulsion and the force of gravity may vary so with the situation of the pendulum, as still to give a series of forces, or a law of variation, perfectly similar to that of gravity. This cannot be effected, unless we know both the law which regulates the action of gravity, producing isochronism of vibration, and the intensity of the force to be derived from the wheels in every situation of the pendulum. The necessary requisite for the isochronous motion of the pendulum is, that the force which urges it toward the perpendicular, be proportional to its distance from it; and therefore, since pendulums swinging in small circular arches are sensibly isochronous, we must infer that such is the law by which the accelerating action of gravity on them is really accommodated to every situation in these arches.

Under the head of CLOCK-MAKING we have entered very fully into the construction of those large horological machines that are intended to measure the time by means of a weight and pendulum. In watches, on the contrary, a spring is the usual maintaining power.

From what we have already seen of the nature of the pendulum, it will be apparent that its oscillations can only approach to a true measure of time when the point of support is fixed and immovable. An approximation, however, to this desideratum may be obtained by a pocket watch regulated by a balance. This useful machine, in its most perfect form, contains within itself a collection of inventions which have exercised the skill of some of the most ingenious mechanics for the three last centuries, and it is gratifying to know that we are indebted to our countrymen Hooke, Graham, Earnshaw, Arnold, and Harrison, for its invention and present improved form.

To explain the mechanism of a watch it is necessary to refer to the figs. 1, 2, 3, plate WATCHES, as they contain engravings of a sunk pocket-watch of the best construction. Fig. 1 is a plan of the wheel-work all exhibited at one view, for which purpose the upper plate of the watch is removed. Fig. 2 is a plan of the balance, and the work situated upon the upper plate. Fig. 3 is an elevation of all the movements together, the works being supposed to be opened out into a straight line, to exhibit them all at once.

The principal frame for supporting the acting parts of the watch consists of two circular plates, marked C and D in the figures; of these the former is called the upper plate, and D is called the pillar plate, from the circumstance of the four pillars, E, E, which unite the two plates and keep them a proper distance asunder, being fastened firmly into the lower plate; the other ends pass through holes made in the upper plate, C, and small pins, being put through the ends of the pillars, keep all together; but, by drawing out these pins, the whole watch may be taken to pieces; and the pivots of the several wheels being received in small holes made in these plates, they of course fall to pieces as soon as the plates are separated.

The maintaining power is a spiral steel spring which is coiled up close by a tool used for the purpose, and put into a brass box called the barrel, it is marked A in all the figures; the pivots of its arbor pass through the top and bottom of the barrel, and one of them is filed square to hold a ratchet wheel b, which has a click, and retains the arbor





# WATCH WORK

Fig. 2.



Fig. 1.



Fig. 4.

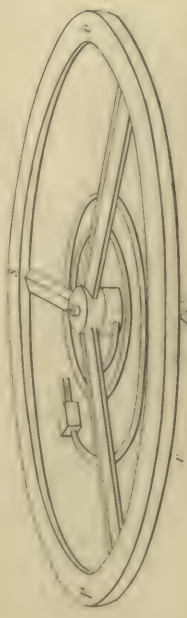


Fig. 2.

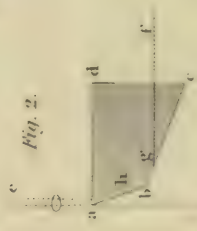


Fig. 3.



# CAMERA LUCIDA

CAMERA LUCIDA.

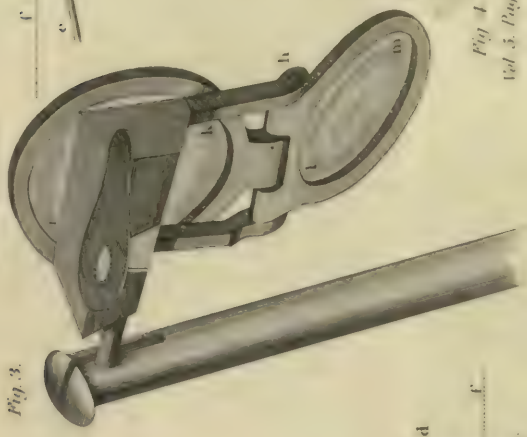


Fig. 3.

Fig. 1.

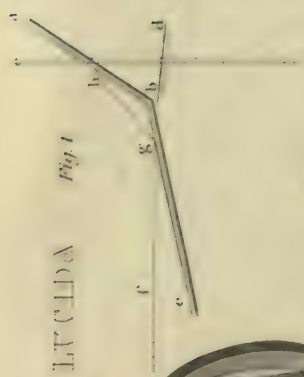
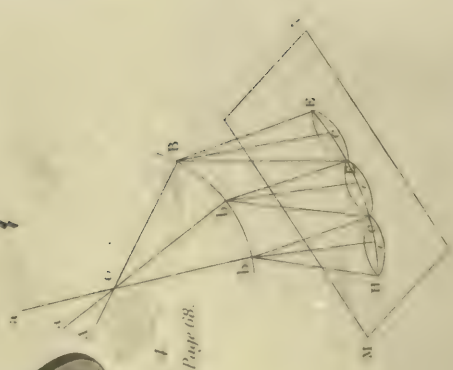


Fig. 4. Page 108.





from turning round except in one direction; the two pivots of the arbor are received in pivot holes in the plates C, D, of the watch, and the pivot which has the ratchet wheel upon it passes through the plate, and the wheel marked *b*, with its click, is therefore on the outside of the pillar plate D of the watch; the top of the barrel has a cover or lid fitted into it, through which the upper pivot of the arbor projects; thus the arbor of the barrel is to be considered as a fixture, the click of the ratchet wheel preventing it from turning round, and the interior end of the spiral spring being hooked, this arbor is stationary likewise. The barrel thus mounted has a small steel chain, *d*, coiled round its circumference, and attached to it by a small hook of the chain which enters a little hole, made in the circumference of the barrel at its upper end; the other extremity of this chain is hooked to the lower part of the fusee, marked F, and the chain is disposed either upon the circumference of the barrel, or in the spiral groove cut round the fusee for its reception, the arbor of which has pivots at the ends, which are received into pivot holes made in the plates of the watch; one pivot is formed square and projects through the plate, to adapt the key by which the watch is wound up.

It is evident that, when the fusee is turned by the watch-key, it will wind the chain off the circumference of the barrel on itself; and as the outer end of the spring is fastened to the barrel, and the other is hooked to the barrel arbor, which, as before mentioned, is prevented from turning by the click of the ratchet wheel, *a b*, beneath, the spring will be coiled up into a smaller compass than before, and, by its reaction, will, when the key is taken off, turn the barrel, and by the chain turn the fusee and give motion to the wheels of the watch, which will be hereafter described. The fusee has a spiral groove cut round it, in which the chain lies; this groove is cut by an engine, in such a form that the chain shall pull from the smallest part or radius of the fusee, when the spring is quite wound up, and therefore acts with its greatest force on the chain; from this point the groove gradually increases in diameter, as the spring unwinds and so acts with less power, the chain operates on a larger radius of the fusee, so that the effect upon the arbor of the fusee, or the cog-wheel attached to it, may always be the same, and cause the watch to go with regularity.

To prevent too much chain being wound upon the fusee, and by that means breaking the chain or overstraining the spring, a contrivance called a guard gut is added; it is a small lever, *e*, moving on a stud fixed to the upper plate, C, of the watch, and pressed downwards by a small spring, *f*; as the chain is wound upon the fusee, it rises in the spiral groove, and lifts up the lever until it touches the upper plate, and it is then in a position to intercept the edge or tooth, *g*, of the spiral piece of metal seen on the top of the fusee, and thus stops it from being wound up any further.

The power of the spring is transmitted to the balance by means of several toothed wheels, which multiply the number of revolutions that the chain makes on the fusee, to such a number, that though the last or balance wheel turns nine times and a half every minute, the fusee will at the same time turn so slowly that the chain will not be all drawn off from it in less than twenty-eight or thirty hours, and it makes one turn in about four hours; this

assemblage of wheels is called the train of the watch. The great wheel, G, has forty-eight teeth on its circumference, which take into and turn a pinion of twelve teeth, fixed on the same arbor with the centre wheel H, so called from its situation in the centre of the watch; it has fifty-four teeth to turn a pinion of six leaves, on the arbor of the third wheel I, which has forty-eight teeth; it is sunk in a cavity formed in the pillar plate, and turns a pinion of six, on the arbor of the contrate wheel K, which has forty-eight teeth cut parallel with its axis, by which it turns a pinion of six leaves, fixed to the balance wheel L; one of the pivots of the arbor of this wheel turns in a frame, called the pottance, fixed to the upper plate, and the other pivot runs in a small piece fixed to the upper part, called the counter pottance (not shown in any of the figures), so that when the two plates are put together, the balance wheel pinion may work into the teeth of the contrate wheel, as is shown in fig. 4. The balance wheel, *l*, has fifteen teeth, by which it impels the balance *o p*; the arbor of the balance, which is called the verge, has two small leaves or pallets projecting from it, nearly at right angles to each other; these are acted upon by the teeth of the balance wheel *l* in such a manner that, at every vibration, the balance receives a slight impulse to continue its motion, and every vibration so made suffers a tooth of the wheel to escape or pass by; whence this part is called the escapement of the watch, and constitutes its most essential part. The wheel *l* is sometimes called the scape wheel, or crown wheel. Suppose the pinion *h* on the arbor of the balance wheel, or crown wheel, *i k*, to be actuated by the main spring which forms the maintaining power, by means of the train of wheel-work in the direction of the arrow, while the pallets *m* and *n*, attached to the axis of the balance, and standing at right angles to each other, or very nearly so, are long enough to fall in the way of the ends of the sloped teeth of the wheel, when turned round at an angle at 45°, so as to point to opposite directions, as in the figure; then a tooth in the wheel below, for instance, meets with the pallet *n* (supposed to be at rest), and drives it before it a certain space, till the end of the tooth escapes; in the mean time the balance, *o s p r*, attached to the axis of the pallets, continues to move in the direction *r o s p*, and winds up the small spiral or pendulum spring *g*, one end of which is fast to the axis, and the other to a stud on the upper plate of the frame; in this operation the spring opposes the momentum given to the balance by this push of the tooth upon the pallet, and prevents the balance going quite round, but, the instant the tooth escapes, the upper pallet, *m*, meets with another tooth at the opposite side of the wheel's diameter, they therefore moving in an opposite direction to that below; here this pallet receives a push which carries the balance back again (having as yet but little power in the direction *o s p r*), and aids the spring, which now unbends itself till it comes to its equiescent position, but it swings beyond that point, partly by the impulse from the maintaining power on the pallet *m*, and partly by the acquired momentum of the moving balance, particularly when this pallet, *m*, has escaped; at length the pallet *n* again meets with the succeeding tooth, and is carried backward by it in the direction in which the balance is now moving, till the maintaining power and force of

the unwo and spring together overcome the momentum of the balance, during which time the recoil of the balance wheel is apparent (for the seconds hand of the watch is usually put on the pivot of the arbor of the contrate wheel); at length the wheel brings the pallet *n* back again till it escapes, and the same process takes place with pallet *m* as has been described with respect to pallet *n*; thus two contrary excursions or oscillations of the balance take place before one tooth has completely escaped, which is the reason there must always be an odd number of teeth in this wheel, that a space on one side of the wheel may always be opposite to a tooth on the other, in order that one pallet may be out of action during the time the other is in action.

The upper pivot of the verge is supported in a cock screwed to the upper plate, as shown at *N*, which covers the balance, and protects it from violence, and the lower pivot works in the bottom of the pottance, *M*, at *t*. The socket for the pivot of the balance wheel is made in a small piece of brass, *v*, which slides in a groove made in the pottance, so that, by drawing the slide in and out, the teeth of the balance wheel shall just clear one pallet before it takes the other; and in the perfection of this adjustment, which is called the scaping of the watch, the performance of it very greatly depends. We shall speak more fully of this in another place. The banking of the watch is to prevent the balance from being turned round too far by accidental jerks, in which case one of the pallets would be pitched upon the point of a tooth of the balance wheel, and recoil it back too far, perhaps injuring its point; this is called being overthrown. Sometimes, if the balance gets turned round too far, the pallets are both turned away from the teeth of the wheel, which then runs down with inconceivable rapidity, and probably breaks the points of its teeth by striking against the pallets as they turn round; to avoid these accidents the banking is introduced; it is a pin fixed in the rim of the balance, and therefore describing a circular arc round the edge of the cock *N*, which covers the balance; but the proper extent of this arc is determined by the banking-pin meeting two projecting parts of the cock, which are extended out so far as to reach beyond the circle the banking pin moves in.

Having thus examined the various parts of a watch, it may now be advisable to revert more particularly to the movement; the mode of arranging the parts of which will be best understood by reference to a series of tables, calculated to produce any number of beats that may be required for practical purposes.

In the following tables the first column of figures gives the number of teeth in the centre, or second wheel, to the different trains; the second column the number of leaves in the third-wheel pinion; the third column the number of teeth in the third-wheel; the fourth column the number of leaves in the counter, or fourth-wheel pinion; the fifth column the number of teeth in the counter-wheel; the sixth column the number of teeth in the escapement-wheel pinion; the seventh column the number of teeth in the escapement-wheel; the eighth column the number of beats in the hour; and the ninth column the time the fourth, or counter-wheel, revolves in. These columns, if taken in the line from left to right, give each train in succession.

Trains for plain Watches, with Eleven Teeth in the Escapement-wheel.

| Numbers for the centre-wheel teeth. | Third-wheel pinions. | Third-wheel teeth. | Fourth wheel pinion. | Fourth, or counter-wheel. | Escapement-wheel pinion. | Escapement-wheel. | Number of beats in one hour. | The time the fourth wheel revolves in. |
|-------------------------------------|----------------------|--------------------|----------------------|---------------------------|--------------------------|-------------------|------------------------------|--|
| 60                                  | 6                    | 60                 | 6                    | 49                        | 6                        | 11                | 17966 $\frac{1}{2}$          | 36 seconds.                            |
| 60                                  | 6                    | 54                 | 6                    | 54                        | 6                        | 11                | 17820                        | 40 do.                                 |
| 60                                  | 6                    | 56                 | 6                    | 52                        | 6                        | 11                | 17795 $\frac{1}{2}$          | 38 $\frac{1}{2}$ do.                   |
| 64                                  | 6                    | 52                 | 6                    | 52                        | 6                        | 11                | 17626 $\frac{1}{2}$          | 39 do.                                 |
| 58                                  | 6                    | 56                 | 6                    | 53                        | 6                        | 11                | 17533 $\frac{1}{2}$          | 39 $\frac{7}{8}$ do.                   |
| 60                                  | 6                    | 54                 | 6                    | 53                        | 6                        | 11                | 17490                        | 40 do.                                 |
| 62                                  | 6                    | 54                 | 6                    | 51                        | 6                        | 11                | 17391                        | 38 $\frac{1}{2}$ do.                   |
| 58                                  | 6                    | 54                 | 6                    | 54                        | 6                        | 11                | 17226                        | 41 $\frac{1}{8}$ do.                   |
| 58                                  | 6                    | 55                 | 6                    | 53                        | 6                        | 11                | 17220 $\frac{1}{2}$          | 40 $\frac{1}{8}$ do.                   |
| 59                                  | 6                    | 54                 | 6                    | 53                        | 6                        | 11                | 17198 $\frac{1}{2}$          | 40 $\frac{1}{2}$ do.                   |
| 60                                  | 6                    | 54                 | 6                    | 52                        | 6                        | 11                | 17160                        | 40 do.                                 |
| 60                                  | 6                    | 55                 | 6                    | 51                        | 6                        | 11                | 17141 $\frac{1}{2}$          | 39 $\frac{1}{2}$ do.                   |
| 61                                  | 6                    | 55                 | 6                    | 50                        | 6                        | 11                | 17085 $\frac{1}{2}$          | 38 $\frac{1}{2}$ do.                   |
| 63                                  | 6                    | 55                 | 6                    | 48                        | 6                        | 11                | 16940                        | 37 $\frac{1}{2}$ do.                   |
| 59                                  | 6                    | 54                 | 6                    | 52                        | 6                        | 11                | 16874                        | 40 $\frac{1}{2}$ do.                   |
| 60                                  | 6                    | 54                 | 6                    | 51                        | 6                        | 11                | 16870                        | 40 do.                                 |
| 61                                  | 6                    | 54                 | 6                    | 50                        | 6                        | 11                | 16775 $\frac{1}{2}$          | 39 $\frac{1}{2}$ do.                   |
| 56                                  | 6                    | 54                 | 6                    | 54                        | 6                        | 11                | 16632                        | 42 $\frac{1}{2}$ do.                   |

Trains for plain Watches, with Thirteen and Fifteen Teeth in the Escapement-wheel.

| Numbers for the centre-wheel teeth. | Third-wheel pinions. | Third-wheel teeth. | Fourth wheel pinion. | Fourth, or counter-wheel. | Escapement-wheel pinion. | Escapement-wheel. | Number of beats in one hour. | The time the fourth wheel revolves in. |
|-------------------------------------|----------------------|--------------------|----------------------|---------------------------|--------------------------|-------------------|------------------------------|--|
| 54                                  | 6                    | 53                 | 6                    | 52                        | 6                        | 13                | 17914                        | 45 $\frac{1}{2}$ seconds.              |
| 56                                  | 6                    | 53                 | 6                    | 50                        | 6                        | 13                | 17862 $\frac{1}{2}$          | 43 $\frac{1}{2}$ do.                   |
| 59                                  | 6                    | 51                 | 6                    | 49                        | 6                        | 13                | 17747 $\frac{1}{2}$          | 43 $\frac{1}{2}$ do.                   |
| 60                                  | 6                    | 51                 | 6                    | 48                        | 6                        | 13                | 17680                        | 42 $\frac{1}{2}$ do.                   |
| 54                                  | 6                    | 53                 | 6                    | 51                        | 6                        | 13                | 17569 $\frac{1}{2}$          | 45 $\frac{1}{2}$ do.                   |
| 56                                  | 6                    | 53                 | 6                    | 49                        | 6                        | 13                | 17505 $\frac{1}{2}$          | 43 $\frac{1}{2}$ do.                   |
| 56                                  | 6                    | 54                 | 6                    | 48                        | 6                        | 13                | 17472                        | 43 $\frac{1}{2}$ do.                   |
| 57                                  | 6                    | 53                 | 6                    | 48                        | 6                        | 13                | 17454                        | 42 $\frac{1}{2}$ do.                   |
| 54                                  | 6                    | 52                 | 6                    | 51                        | 6                        | 13                | 17238                        | 46 $\frac{1}{2}$ do.                   |
| 54                                  | 6                    | 53                 | 6                    | 50                        | 6                        | 13                | 17225                        | 45 $\frac{1}{2}$ do.                   |
| 56                                  | 6                    | 51                 | 6                    | 50                        | 6                        | 13                | 17188 $\frac{1}{2}$          | 45 $\frac{1}{2}$ do.                   |
| 54                                  | 6                    | 52                 | 6                    | 50                        | 6                        | 13                | 16900                        | 46 $\frac{1}{2}$ do.                   |
| 56                                  | 6                    | 51                 | 6                    | 49                        | 6                        | 13                | 16845 $\frac{1}{2}$          | 45 $\frac{1}{2}$ do.                   |
| 57                                  | 6                    | 51                 | 6                    | 48                        | 6                        | 13                | 16796                        | 44 $\frac{1}{2}$ do.                   |
| 52                                  | 6                    | 52                 | 6                    | 51                        | 6                        | 13                | 16599 $\frac{1}{2}$          | 45 $\frac{1}{2}$ do.                   |
| 53                                  | 6                    | 52                 | 6                    | 50                        | 6                        | 13                | 16587 $\frac{1}{2}$          | 46 $\frac{1}{2}$ do.                   |

For Fifteen Teeth in the Escapement-wheel.

|    |   |    |   |    |   |    |                     |                      |
|----|---|----|---|----|---|----|---------------------|----------------------|
| 54 | 6 | 50 | 6 | 48 | 6 | 15 | 18000               | 44 do.               |
| 52 | 6 | 50 | 6 | 48 | 6 | 15 | 17333 $\frac{1}{2}$ | 49 $\frac{1}{2}$ do. |
| 54 | 6 | 48 | 6 | 48 | 6 | 15 | 17280               | 50 do.               |

In the foregoing trains, pinions of seven are introduced to perform seconds as pinions of eight or six, which complete fifths of seconds, two-ninths of seconds, and fourths of seconds. Few believe that



pinions of seven will perform minutes, seconds, &c., equal to pinions of eight or six. The following calculation will, however, prove it, and the same rule is accurate and concise for every other calculation.

The number of the centre-wheel teeth sixty, divided by seven, the number of the third-wheel pinion, shows how many revolutions and parts are given to the third wheel, while the centre wheel makes one revolution.

7) 60

8 $\frac{4}{7}$

Eight revolutions, and four-seventh parts, are given to the third wheel and pinion in one hour; then, if the third wheel has forty-nine teeth in it, the question follows, how many teeth (repeated) of the third wheel will fall in action with the fourth wheel pinion in one hour?

49 teeth in the third wheel,

Multiplied by 8 $\frac{4}{7}$  revolutions in it,

28

392

420 teeth,

the number which fall in action with the fourth-wheel pinion in one hour; the fourth-wheel pinion being seven, divide the 420 teeth by that number, to see how many revolutions will be given to the fourth-wheel pinion in one hour.

7) 420 teeth, divided by 7

is 60 revolutions

given to the fourth wheel and pinion in one hour; consequently must perform a minute circle.

And here it follows to consider true seconds: they have no regulation from the foregoing calculation, after it has produced sixty revolutions, by the fourth-wheel pinion, in one hour; therefore the fourth-wheel, escapement-pinion, and escapement-wheel, are to govern the seconds and parts of seconds. There can be no true seconds performed upon the minute circle without the parts of seconds be first considered.

First, fifths of seconds require 18,000 beats in one hour; secondly, two-ninths of seconds, which perform two seconds in nine beats, allowing four beats and a half for every second, which cuts the first second with the fifth beat, and coincides with the second second at the ninth beat; and so on, successively, through the minute, cutting the odd, and coinciding with the even numbers, which require 16,200 beats in the hour; and thirdly, fourths of seconds require 14,400 beats in the hour. No other number of beats, between 18,000 and 14,400, will give exact parts of seconds. Manufacturers who have not these numbers can neither give a true second nor a true minute; for the conclusion of the minute will be cut by a fractional part, more or less, until so many minutes are performed as there are parts in the integer. But to give 18,000 beats in the hour, for fifths of seconds, first it is to be considered that the fourth wheel has sixty revolutions in one hour; then, with seventy teeth in the fourth wheel, how many teeth of the fourth wheel will come into action with the escapement pinion?

60 revolutions,

Multiplied by 70 teeth, in the fourth wheel

4200 teeth

will come into action with the escapement pinion. Then, to find how many revolutions will be given to an escapement pinion of seven, divide the 4200 teeth by the pinion of seven.

7) 4200 teeth, divided by 7,

gives 600 revolutions to the escapement pinion in one hour.

Then, an escapement-wheel with fifteen teeth, allowing two beats for every tooth, makes thirty beats in each revolution; afterwards the question follows, how many beats in one hour?

600 revolutions in the escapement-pinion,

Multiplied by 30 beats in each revolution, gives

60) 18000 beats in an hour, divided by 60, gives the quantity of beats in one minute.

60) 500 the quantity of beats in a minute, divided by 60, gives the quantity of beats in one second.

5 the number of beats in one second.

It may now be advisable to give the calculations which govern the turns for the chain on the fusee. The first or great wheel, and the centre pinion, are to be numbered to give the quantity of turns, as follows:—

| Number of the great wheel teeth. | Number of the centre pinion. | Number of turns in the fusee. |
|----------------------------------|------------------------------|-------------------------------|
| 48                               | 12                           | 7 $\frac{1}{2}$               |
| 50                               | 12                           | 7 $\frac{1}{2}$               |
| 52                               | 12                           | 6 $\frac{1}{3}$               |
| 54                               | 12                           | 6 $\frac{1}{3}$               |
| 56                               | 12                           | 6 $\frac{1}{3}$               |
| 58                               | 12                           | 6 $\frac{2}{3}$               |
| 60                               | 12                           | 6                             |
| 62                               | 12                           | 5 $\frac{2}{3}$               |
| 64                               | 12                           | 5 $\frac{2}{3}$               |
| 66                               | 12                           | 5 $\frac{1}{3}$               |
| 68                               | 12                           | 5 $\frac{1}{3}$               |
| 70                               | 12                           | 5 $\frac{1}{3}$               |
| 50                               | 10                           | 6                             |
| 52                               | 10                           | 5 $\frac{1}{5}$               |
| 55                               | 10                           | 5 $\frac{1}{5}$               |
| 58                               | 10                           | 5 $\frac{2}{5}$               |
| 60                               | 10                           | 5                             |
| 62                               | 10                           | 4 $\frac{3}{5}$               |
| 65                               | 10                           | 4 $\frac{3}{5}$               |
| 68                               | 10                           | 4 $\frac{2}{5}$               |
| 70                               | 10                           | 4 $\frac{2}{5}$               |

The rule for examining the foregoing calculations must be tried as follows:—The number of hours required for the watch to go must be first considered; say thirty hours; then the number of the centre pinion must be given, say twelve; then multiply the hours by the centre pinion, which product being divided by the number of the great-wheel teeth, say sixty; the quotient will be the turns of chain the fusee should have to perform thirty hours: for example:—

30 hours, multiplied by  
12 the number of the centre pinion.

60) 360 product, divided by 60, the number of the great-wheel teeth.

6 quotient, the turns for the fusee chain.

The same rule may be observed for any number of hours required, by multiplying the number of hours by the pinion given, and dividing the product by the number of the great-wheel teeth; the quotient will give the turns for the chain on the fusee.

**WATCHES, REPEATING,** are such as by pulling a string, &c., repeat the hour, quarter, or minute, at any time of the day or night. This repetition was the invention of Mr. Barlow, and first put in practice by him in larger movements or clocks, about the year 1676. The contrivance immediately set the other artists to work, who soon contrived divers ways of effecting the same. But its application to pocket watches was not known before king James II.'s reign; when the ingenious inventor above-mentioned, having directed Mr. Thompson to make a repeating watch, was soliciting a patent for the same. The talk of a patent engaged Mr. Quare to resume the thoughts of a like contrivance, which he had had in view some years before: he now effected it; and, being pressed to endeavour to prevent Mr. Barlow's patent, a watch of each kind was produced before the king and council; upon trial of which the preference was given to Mr. Quare's. The difference between them was, that Barlow's was made to repeat by pushing in two pieces on each side of the watch box; one of which repeated the hour and the other the quarter; whereas Quare's was made to repeat by a pin that stuck out near the pendant, which being thrust in (as now it is done by thrusting in the pendant itself), repeated both the hour and quarter with the same thrust.

**WATCHFIELD** a hamlet of England, in Berkshire, near Great Farringdon.

**WATEEHOO**, an island in the South Pacific Ocean, six miles long and four broad, discovered by captain Cook in 1777. It is a beautiful spot, with the surface varied by hills and plains, and covered with verdure. The language spoken was equally well understood by Omai, and by two New Zealanders. What its peculiarities may be, when compared with the other dialects, captain Cook was not able to point out. Long. 158° 15' W., lat. 20° 1' S.

**WATELET** (Claud Henry), a celebrated poet and lexicographer, born at Paris, in 1718. He was a member of the French Academy, and of several foreign societies. He was also receiver general of the finances; yet he died poor, in 1786. He wrote a poem on the Art of Painting; several Comedies; and other pieces of merit; and left A Dictionary of Painting, Sculpture, and Engraving, which was published after his death.

**WATER**, *n. s., v. a., & v. n.*

**WATERCOLORS**, *n. s.*

**WATERCESSES**,

**WATERER**,

**WATERFALL**,

**WATERFOWL**,

**WATERGRUEL**,

**WATERINESS**,

**WATERISH**, *adj.*

**WATERMAN**, *n. s.*

**WATERMARK**,

**WATERMILL**,

**WATERRAT**,

**WATERWORK**, *n. s.*

**WATERY**, *adj.*

moisture; get or take in water: the compounds do not seem to need particular explanation: waterish and watery mean resembling water; thin; liquid; boggy

Sax. *wætern*;

Belgic *wæter*;

Teutonic *wasser*;

Goth. *wats, watz*.

A compound æ-

riform fluid. See

below. The sea;

urine; vein or

lustre of a dia-

mond: to water

is to irrigate;

supply with drink

or moisture; di-

versify, as with

waves; to shed

A river went out of Eden to water the garden.

*Gen. ii. 10.*

He set the rods he had pulled before the flocks in the gutters in the watering troughs.

*Gen. xxx. 38.*

As the hart panteth after the water-brook, so panteth my soul after thee, O God.

*Psalms.*

Travel by land or by water.

*Common Prayer.*

Forth flowed fresh

A gushing river of black gory blood,

That drowned all the land whereon he stood

The stream thereof would drive a watermill, *Spenser.*

Now 'gan the golden Phœbus for to steep

His fiery face in billows of the west,

And his faint steeds watered in ocean deep,

Whilst from their journal labours they did rest. *Id.*

His horsemen kept them in so strait, that no man could, without great danger, go to water his horse.

*Knolles.*

The watery kingdom is no bar

To stop the foreign spirits; but they come,

As o'er a brook, to see fair Portia.

*Shakspeare.*

Mine eyes,

Seeing those beads of sorrow stand in thine,

Began to water.

*Id.*

There be land-rats and water-rats.

*Id.*

If thou couldst, doctor, cast

The water of my land, find her disease,

And purge it to a sound and pristine health,

I would applaud thee. *Id.*

'Tis a good form,

And rich: here is a water, look ye! *Id.*

I have seen in the Indies far greater waterfalls than those of Nilus.

*Raleigh.*

Waterfowl joy most in that air which is likest water.

*Bacon.*

A man's nature runs to herbs or weeds; therefore let him seasonably water the one, and destroy the other.

*Id.*

Cardinal Wolsey's teeth watering at the bishoprick of Winchester, sent one unto bishop Fox, who had advanced him, for to move him to resign the bishoprick.

*Camden.*

The nymphs of floods are made very beautiful; upon their heads are garlands of water-cresses.

*Peacham.*

This ill weed, rather cut off by the ground than plucked up by the root, twice or thrice grew forth again; but yet, maugre the warmers and waterers, hath been ever parched up.

*Carew.*

By water they found the sea, westward from Peru, always very calm.

*Abbot.*

Engines invented for mines and waterworks often fail in the performance.

*Wilkins.*

Those few escaped

Famine and anguish will at last consume,

Wandering that watery desert.

*Milton.*

These reasons made his mouth to water

With amorous longings to be at her.

*Hudibras.*

The pike is bold, and lies near the top of the water, watching the motion of any frog, or water-rat, or mouse.

*Walton.*

Let them lie dry twelve months to kill the water-weeds, as water-lilies and bull-rushes.

*Id.*

Chaste moral writing we may learn from hence,

Neglect of which no wit can recompense;

The fountain which from Helicon proceeds,

That sacred stream, should never water weeds.

*Waller.*

Painters make colours into a soft consistence with water or oil; those they call watercolours, and these they term oil colours.

*Boyle.*

Could tears water the lovely plant, so as to make it grow again after once 'tis cut down, your friends would be so far from accusing your passion, that they would encourage it, and share it.

*Temple.*

Where the principles are only phlegm, what can be expected from the waterish matter, but an insipid manhood, and a stupid old infancy?

*Dryden.*



Between us and you wide oceans flow,  
And watery desarts. *Id.*  
Men and beasts

Were born above the tops of trees that grew  
On the utmost margin of the watermark. *Id.*

Rain carried away apples, together with a dunghill  
that lay in the water-course. *L'Estrange.*

For breakfast milk, milk-pottage, watergruel, and  
flummery, are very fit to make for children. *Locke.*

The different ranging the superficial parts of velvet  
and watered silk, does the like. *Id.*

You may water the lower land when you will.

*Mortimer.*

Other mortar, used in making water-courses, cis-  
terns, and fishponds, is very hard and durable. *Moxon.*

No heterogeneous mixture use, as some

With watery turnips have debased their wines. *Philips.*

A pendulous sliminess answers a pituitous state, or  
an acerbity, which resembles the tartar of our humours; or  
waterishness, which is like the serosity of our blood.

*Floyer.*

Not Lacedæmon charms me more

Than high Albana's airy walls,

Resounding with her waterfalls. *Addison.*

Mountains, that run from one extremity of Italy to  
the other, give rise to an incredible variety of rivers  
that water it. *Id.*

When the big lip, and watery eye,

Tell me the rising storm is nigh;

'Tis then thou art yon angry main,

Deformed by winds, and dashed by rain. *Prior.*

The waterman forlorn, along the shore,

Pensive reclines upon his useless oar. *Gay.*

The forerunners of an apoplexy are dulness, night-  
mares, weakness, wateriness, and turgidity of the eyes.

*Arbuthnot.*

Less should I dawb it o'er with transitory praise,

And watercolours of these days:

These days! where e'en the extravagance of poetry

Is at a loss for figures to express

Men's follies, whimsies, and inconstancy. *Swift.*

Go to bed, after you have made water. *Id.*

**WATER.** In this paper we propose to draw into  
a focus a few popular and familiar views that may  
be taken of this interesting subject, referring to the  
articles AIR, CHEMISTRY, &c., for the more full  
elucidation of the scientific laws and principles in-  
volved. Our chief object is to lead the general  
reader to the portal of its chemical characteristics.  
No substance in nature may more properly be  
called 'the common want' of all the vegetables,  
all the animals, all the races of mankind, than  
water—and none is more widely diffused. Its inti-  
mate connexion with life, throughout all the variety  
of living forms, will appear at once from the consi-  
deration that no animal or vegetable exists, for any  
two successive instants of time, in precisely the  
same state; it is constantly undergoing, we mean,  
some internal motion or change arising from its  
peculiar organisation. Its most solid parts are  
formed and sustained by decomposition from cir-  
culating fluids—and the basis of all the fluids thus  
circulating through every vessel and tube of orga-  
nised existence is water. On the other hand, how  
abundantly does it minister to life externally! It  
has often been called the natural food of plants.  
While in the earth alone, deprived of moisture,  
all decay and perish: in water alone many of them  
will live and flourish to perfection. Witness the  
bulbous roots thus sustained, with which the ladies  
contrive to ornament our drawing-rooms; or the  
more homely experiment of growing mustard and  
cress on wetted baize. Witness, on a larger scale,  
those arid parts of the earth where nothing living

relieves the eye of the traveller for miles; and the  
oases of the same desert regions, where, on the  
slightest supply of water, all is life and fertility: or,  
in still more surprising and magnificent contrast,  
the margin and depths of the ocean, abounding in  
living creatures of every size, and plants of all de-  
scriptions.

Water, as an aliment of man, has naturally en-  
gaged much of his attention. Considered in its  
various forms and preparations, no single article of  
food is so important to him. For this he first ex-  
plored the depths of the earth; in all ages, and  
under all forms of religion, for this he has looked  
to heaven. Tribes of men, in early ages, as we  
read in Scripture, have been ready to go to war for  
particular wells; and the Bedouin Arabs frequently  
shed each other's blood to obtain possession of  
them to this day. In the recent expedition of  
major Dubarr into central Africa, the party arrived  
soon after noon, with the thermometer at 110°  
in the shade, at the well of Burr Kashifery. 'The  
well was guarded (says our traveller); and we were  
told that until the shickh mina appeared not a  
drop was to be drawn. Towards evening the  
shickh appeared on the hills to the north-west at-  
tended by his troop. He seemed vastly glad to  
see us; said the well was ours—that our water-  
skins should be filled, and our camels should be  
watered before any body, and for nothing; and  
then, said he, sultan George the Great must be  
obliged to Mina Tahr, the woody chief of Gunda,  
and that will give more pleasure to Tahr's heart  
than payment; and who knows, said he, but when  
sultan George hears this he may send me a sword.'

Thus, regarded as the common food of the vegeta-  
ble and animal kingdoms, water becomes connected  
with agriculture, and various mechanical arts to  
obtain and preserve it, or to diffuse its living  
streams. Penetrating the atmosphere, and cir-  
culating above our heads, it is associated with the  
whole doctrine of aerial and atmospherical pheno-  
mena. It assists largely in painting the beautiful  
scenery of the sky, and in the whole economy of  
the clouds, while held in solution as vapor; now  
answering the purpose of a screen to the earth from  
the too powerful and scorching rays of the sun, and  
now yielding in fertilising showers, and in 'the  
gentle dew from heaven,' its most essential nour-  
ishment. Need we add that water, as a universal  
solvent, is also, in its elastic and fluid state, a uni-  
versal cleanser; thus readily mixing with and as-  
sisting all other bodies of this character; or that it  
has become in almost every language, therefore, a  
symbol of purity; and in that of the conscience  
and the Bible of that purity of heart without which  
no man shall see God? In other views of it, as in  
the wide spread seas, it is the handmaid of com-  
merce, the high road of nations; in the larger rivers  
the foundation of the opulence of cities; spreading  
or uniting mankind in a great scheme of providence;  
conveying from shore to shore, and inter-  
changing from town to town, the productions of  
all the earth.

Snow and ice are but forms of water—most im-  
portant and beneficial forms. They assist in agri-  
culture, as commissioned to clothe the ground, and  
protect and feed its productions in their tenderest  
state. The temperature of both in northern winters  
is not below the freezing point of 32°, while (in  
northern parts of the Russian empire for instance)  
the surrounding air is sometimes 60° or 70° below



that point. In their congealed state they shield both plants and animals, therefore, from the more piercing cold of the atmosphere, and even the delicate horse will prefer lying in the common fields of a snowy night to the shelter of a common shed. The water they again yield in a fluid state is the first nourishment of the plants in early spring; while both the expansion and contraction of the water in this wonderful process tends to pulverise the soil, and to separate its parts from each other; to act, therefore, as the most effective plough that is ever put into the ground; rendering the whole penetrable to the air, the dews, the warmth of the sun, and to the other nutritive agencies of vegetation.

To regard our subject popularly for a few minutes longer, we meet with ice, common water, and steam, the three principal forms of water, according to the different degrees of heat with which it is combined. Deprived of its usual quantity of caloric it assumes a solid form at  $32^{\circ}$  Fahrenheit; and near the poles may be formed, by the chisel of the statuary, similarly to stone or the hardest rocks. A mimic palace, it is well known, was built at St. Petersburg, during the severe winter of 1740, from the ice of the river Neva. It was fifty-two feet long by sixteen wide, consisting of blocks from two to three feet thick, disposed and ornamented with great care and taste, various parts being finely colored by water of different tints sprinkled upon them. Ten cannon were made of and mounted with ice at this time, and a leaden bullet was fired from one of them, in the presence of the whole Russian court, through a board two inches thick. This fact may be familiar to our readers; but another, singularly contrary to what is observed of other fluids, is worthy our particular remark here. Water heated above or cooled below  $39\frac{1}{2}^{\circ}$  of Fahrenheit becomes of less specific gravity than in its natural state; that is, a less weight occupies a much greater space; a fact too astonishing ever, says an able observer, to have been discovered or imagined *a priori*. The wisdom and goodness of the great Artificer of the world will manifest itself in this arrangement, if we consider what would have been the consequences had water been subject to the general law, and, like other fluids, become specifically heavier by the loss of its caloric. In winter, when the atmosphere became reduced to  $32^{\circ}$ , the water on the surface of all lakes would have sunk as it froze; another sheet of water would have frozen immediately and sunk also; the ultimate consequence of which would have been the destruction of all their finny tribes; the beds of our rivers would have become repositories of immense masses of ice, which no subsequent summer could have thawed; and the world, in short, have been converted into a frozen chaos. How admirable the wisdom, how skilful the contrivance, that, by subjecting water to a law contrary to what is observed by other fluids, the water as it freezes becomes specifically lighter, and, swimming upon the surface, performs an important service by preserving a vast body of heat in the covered fluid from the effects of the surrounding cold, ready to receive its accustomed quantity again on the first change of the atmosphere! Indeed, had the transition of water from its solid into its liquid state not been accompanied by this great change in its relation to heat, every thaw would have occasioned a frightful inundation, and a single night's frost would have solidified our rivers and lakes.

We have mentioned the expansion and contraction of water as it freezes or thaws. According to the calculations of the Florentine academicians, a spherule, or little globe of water, only one inch in diameter, expands in freezing with a force superior to the resistance of thirteen tons and a half weight. Major Williams attempted to prevent this expansion; but during the operation the iron plug which stopped the orifice of the bomb-shell containing the freezing water, and which was more than two pounds weight, was projected several hundred feet with great velocity; and in another experiment the shell burst. The law in question is eminently important, and nature has made it unalterable. This property of water is taken advantage of in splitting slate. At Colly Western the slates are dug from the quarries in large blocks. These are placed in an opposite direction to what they had in the quarry, and the rain is allowed to fall upon them; when it penetrates their fissures, and the first sharp frost freezes the water, which, expanding with its usual force, splits the slate into thin layers.

Let us now look again, and a little more closely, at water as a fluid. In this state it is comparatively transparent, and distilled water is as much so as any body in nature—colorless, tasteless, and without smell. It is also without change, in proportion as it is free from admixtures; it seems liable to no spontaneous changes; and might be kept unaltered for ages in close vessels upon which it had no action. Distilled water, evaporated in a pure vessel, leaves no residuum.

But water found within or upon the surface of the earth contains various earths, mineral, vegetable, and animal matters. Rain and snow water are comparatively purer; but these also contain tinctures of what floats in the air, or would mix with the watery vapors. Much stress was once laid by chemists upon the difficulty of procuring distilled water, and the necessity of repeating the process many times; but it was shown by Lavoisier that rain water once distilled, rejecting the first and last products, is as pure as it can be procured by any number of distillations.

The Thames water has been long known for becoming soon putrid at sea, and quickly undergoing various spontaneous changes which belong to any thing but water. Upon what has been made known respecting it of late we shall not dwell; but may remark, in abatement of some claims upon the subject, that many impurities mingle with all water that do not alter, in any permanent or important way, its qualities. The great question is, what mingles with water chemically, and so does alter its qualities, and what mechanically only, and may, therefore, be readily removed by filtration? By a happy arrangement of providence most of the adventitious matters that are found in water are rather suspended than dissolved in it, or are united to it only mechanically and not chemically. Other admixtures, however, are of a different description, and require accurate chemical tests and analysis to detect them.

We have mentioned the other most important form of water, considered popularly, steam. Combined with a smaller quantity of caloric than in its fluid state, let us remember, it becomes ice; combined with a larger or plus quantum it becomes vapor or steam; that is at the heat of  $212^{\circ}$  Fahrenheit.

On this property of water depends that greater



of the modern inventions of science, the steam-engine. At present we can only offer a familiar elucidation or two of the amazing increase of volume, and rapid condensation of steam in this way. Take a Florence flask with water in the bottom, boil it over a spirit lamp; and afterwards invert about two inches and a half of the neck in a vessel of cold water. The water will rise with a gush upwards into the flask, filling the vacuum; (and therefore nearly the flask), made by the steam having been condensed.

However long we boil water in an open vessel, it may be observed, we cannot make it in the smallest degree hotter than its boiling point: then the vapor absorbs the heat, and carries it off as fast as it is generated. Yet by continued heat, united with additional compression, both the expansibility and temperature of steam may be greatly increased: and some constructors of steam-engines have availed themselves of this property, to augment the power and diminish the expense of them. These are what are called high pressure engines.

But a singular difference has been lately noticed by M. Gay Lussac, with regard to the vessel in which water is boiled. He has ascertained that water boiling in a glass vessel has a temperature of  $214^{\circ}2'$ , and in a tin vessel contiguous to it of only  $212^{\circ}$ . A few particles of pounded glass, thrown into the former vessel, reduced the thermometer plunged in it to  $212^{\circ}6'$ , and iron filings to  $212^{\circ}$ . When the flame is withdrawn for a few seconds, from under a glass vessel of boiling water, the ebullition will recommence on throwing in a pinch of iron filings. Of what future importance this may be to chemistry, or the arts, we do not presume to judge: but only mention it as a singular and very modern observation (considering for how many centuries water has been boiled) on the peculiarities of that body.

To return from this incidental notice of steam, and the steam-engine, we may suggest a few chemical tests of the purity of water.

1. Iron very commonly impregnates it: this is the case whenever it flows through a gravelly soil. The presence of iron may be detected by pouring into water prussiate of potash, when a blue precipitate is the result: the Prussian blue of commerce. 2. The gallic acid, very astringent, or any vegetable astringents of that kind in water may be detected by pouring into it sulphate of iron, when a black inky precipitate results. This is not frequently seen in settled, but in unsettled or uncleaned countries, like the western part of the United States, it is found through the falling of the leaves and bark of trees into standing waters.

3. The presence of lime in water is detected by breathing into it: the lungs decompose the atmospheric air, and, yielding carbonic acid, produce a carbonate of lime.

4. Passing now into that useful laboratory, the kitchen, copper, one of the most deadly poisons, is but too often carelessly in use there: its presence is to be detected by plunging a common iron knife into water. Copper is formed on the knife, arising from the greater affinity of iron for oxygen, the iron having decomposed the salt of copper in the water.

5. Do we suspect sulphuric acid to be present? It may be detected by pouring in the suspected water a vegetable infusion. Pour the tested body on the test, and the vegetable blue becomes a red.

6. Volatile alkali? This is detected in a similar manner. Only the vegetable infusion now becomes green.

The different temperature at which water boils, as compared with all spirituous liquids, is the foundation of the art of DISTILLATION, which see. In the largest application of the principles of that art in this country, i. e. to the distillation of gin, malt-wash is boiled from  $190^{\circ}$  to  $195^{\circ}$  Fahrenheit, (water not boiling until it arrives at  $212^{\circ}$ , as we have seen); when the spirit separates from the water, and comes over in the form of steam, which is condensed in passing through the long pipes of the worm surrounded with cold water. As an evening amusement we may attempt the French manufacture of brandy, without fear of a visit from the officers of excise: in fact distil it from port wine, over the spirit lamp: boiled in the retort, the steam will gradually come over and be condensed in the reservoir. 2. Ether may in a similar manner be boiled in water, but just warm. It boils at  $98^{\circ}$  in the air: in vacuo at  $20^{\circ}$  Fahrenheit. 3. Spirit-bombs show the expansive force of the steam of spirit, which like that of water is ungovernable at a certain point. Hence the explosion of steam-engines.

Another familiar elucidation of the qualities of water may close this part of our subject. Viewing it generally in connexion with a yielding medium, we may imagine its particles have no actual hardness; and therefore cannot be subject to the laws of friction.

But taken distilled in an exhausted tube; composing what is called a water-mallet; and the sound produced by the streams striking on the bottom of the tube, proves that there is a point at which its particles do not yield.

The chemistry of water is very simple; it is comparatively of late discovery; yet nothing in the whole compass of experimental science appears, in its principal points, to be better established.

Philosophy recognised water as an element, 'one of the four elements,' from the times of Aristotle to those of the late Mr. Cavendish. That gentleman demonstrated, about the year 1784, that it is composed, in fact, of two distinct æriform fluids—oxygen and hydrogen; containing eighty-eight parts by weight out of every 100 of the former and twelve of the latter. This was the result of three years of laborious experiments.

The late Mr. Watt, the celebrated improver of the steam-engine, seems to have inferred at the same period (in 1783), independently of Mr. Cavendish, that water was a compound body of the kind it has been since proved to be; as did the French chemist Lavoisier and La Place. A friend of the latter, count Monge of Paris, seems to have been the first that suggested an experiment which is often exhibited to the present day, as placing the composition of water beyond dispute. He passed the steam of water through a red-hot iron tube, and found that the water was oxidised; that is, the oxygen attached itself to the iron, and the hydrogen disengaged. The hydrogen is, in this experiment, proved not to be steam by being forced through cold water. But what is called the grand experiment of the French chemists, as to the composition of water, occupied more than nine days of the month of May, 1790. The combustion of the gases was kept up by Fourcroy, Vauquelin, and Seguin, on this occasion, 185 hours, during which



the machine was not quitted for a moment; the experimenters alternately refreshing themselves when fatigued by lying down for a few hours on mattresses in the laboratory.

The volume of hydrogen employed was 25963·568 cubic inches, and the weight was 1039·358 grains. The volume of oxygen was 12570·942, and the weight was 6209·869 grains. The total weight of both elastic fluids was 7249·227. The weight of water obtained was 7244 grains, or 12 oz., 4 gros, 45 grains. The weight of water which should have been obtained was 12 oz., 4 gros, 49·227 grains; the deficit being only 4·227 grains—easily accounted for by the imperfection of all human instruments and experiments, especially on such a scale.

If we take sulphuric or muriatic acid, diluted three parts with water, and pour it upon iron-tilings in a glass vessel, the temperature of the mixture will soon be so much increased by the union of the water with the acid, as to enable the iron to decompose a part of the water. A hole being made through a cork which fits the mouth of the phial, and a piece of tobacco-pipe with a very small orifice being fitted into it, and the whole cemented into the phial, the hydrogen gas, as it is separated from the water, will pass in a continued stream through the pipe, and may be set on fire by the flame of a candle. The gas will continue to burn with a blue lambent flame, as long as the decomposition goes on. This shows that the gas is really hydrogen, and that it arises from the decomposition of the water.

That water may be re-formed by the combustion of this gas may be shown by holding a glass bell over the flame of the gas: as the hydrogen burns, it unites with the oxygen of the atmosphere, and the union of the two gases produces water, which will soon be seen to deposit itself like dew on the inside of the glass. These two experiments, taken together, prove the compound nature of water in the most satisfactory manner.

The carburetted hydrogen burnt for lights in the shops and counting houses sometimes, also, will establish the above facts relative to the composition of water. Over the lamps we see bell-glasses with long curved pipes fitted to the top, ending in a small glass vessel. By these pipes what would otherwise become an annoying smoke is consumed, and, uniting with the oxygen of the atmosphere, forms water, which is received in the glass vessel. A friend of ours in Cheapside thus carries off from two burners about half a wine glass full of water every night.

There are other methods of decomposing water. When two wires from the opposite extremities of the galvanic battery are placed in a tube containing water, so that they are distant from each other a quarter of an inch or half an inch, a stream of gas issues from each wire—from the positive wire oxygen, from the negative hydrogen gas; and these are in the proportions which when exploded, either by galvanism or electricity, re-form water.

Vegetables have the power of decomposing water by an operation peculiar to themselves. If a sun-flower leaf be placed in an inverted jar of water, exposed to the rays of the sun, bubbles of oxygen will be rapidly formed; the leaf having appropriated to itself the hydrogen, and consequently disengaged the oxygen which forms the bubbles.

Having thus established the great general fact of the composition of water, and what are its component parts, it will be interesting to examine these parts separately.

Oxygen was first obtained by Dr. Priestley in 1774, from the red oxide of mercury exposed to a burning lens; that is, he obtained this gas from the oxide, not knowing or believing it to be a component part of water. He clearly ascertained, however, at this period its two great distinguishing properties of rendering combustion more vivid and eminently supporting life. Scheele, a Danish chemist, and Lavoisier, seemed to have obtained it in the same way, without any knowledge of Dr. Priestley's discovery, the same year. It was reserved for Mr. Cavendish, as we have seen, first to suggest, in 1781, and prove beyond dispute in 1784, the important quantum of this vivifying ingredient contained in water. See OXYGEN. We have said its two principal characteristics are promoting combustion and sustaining life. These, perhaps, are in substance one. We all remember the old experiment of the plumbers to ascertain whether they may in safety descend a well; that is, by first letting down a candle—for generally where a candle burns they know a man can breathe.

How eminently this gas supports combustion may be further inferred from the fact that, 1. It relights a taper; 2. Readily produces sulphuric acid from sulphur; 3. Or, with equal readiness, phosphoric acid from phosphorus. We may here add though this eminent supporter of combustion, this gas is not itself a combustible.

Hydrogen, though the much inferior component part of water, has been honored with a name which signifies (*υδρο*, water, and *γεννω*, to produce) to produce water. See HYDROGEN.

1. In proof of its being the lightest ponderable known, it is the great ingredient used in aerostation. One of Bate's balloons may be sent up in any parlor filled with this gas: it is composed of the maw of a turkey, and filled precisely on the principle of the largest balloons.

2. Hydrogen will not support combustion; if we immerse in it a taper it instantly dies. Yet is this gas highly combustible in atmospheric air: hence its importance in modern times, arising from its extensive use (already adverted to) in lights; and its well known connexion with the explosions that frequently take place in coal-mines. The investigation of its properties in the latter case has led to Sir Humphry Davy's admirable invention of the SAFETY LAMP, which see. He found that this gas was generated in large quantities, imperceptibly, by the surface of the coal, and then on mixing with the air of the atmosphere went off, on application of a common light, in a violent and dangerous explosion. Sir Humphry Davy's invention simply prevents the light from coming in contact with this dangerous mixture of airs by a gauze veil.

We conclude in the words of a contemporary author, which may suggest a reflection for our younger readers:—

When judgment waked the Almighty hand  
To smite the vile of every land;  
Once in six thousand years he hurl'd  
A waste of waters on the world.  
But through each day of all the years,  
Before and since his hand appears,



Conducting Mercury's myriad streams  
Wherever life puts forth its gleams;  
And writes on all below—above,  
That nature is the work of love.

**WATER**, among jewellers, is properly the color or lustre of diamonds and pearls. The term, though less properly, is sometimes used for the hue or color of other stones.

**WATER APPLE**, in botany. See *ANNONA*.

**WATER BETONY**. See *SCROPHULARIA*.

**WATER BORNE**, in sea language, the state of a ship, with regard to the water surrounding her bottom, when there is barely a sufficient depth of it to float her off from the ground.

**WATER CALAMINT**, a species of mentha.

**WATER CISTERNS**, for rural purposes, are of great utility and importance in many parts of the country. In the high eastern parts of the North Riding of Yorkshire, water-cisterns or reservoirs are made by the inhabitants within the ground, and are fed by the rain-water which falls upon the roofs of the buildings and is conducted thence by spouts. By means of these cisterns a very ample supply of soft water, suitable for every domestic purpose, is always ready at hand, which is raised for use by means of a pump. As the keeping of all external air out of the cistern contributes much to the sweetness of the water, the pipe by which the cistern is fed should be continued to within a few inches of the bottom, and the surplus water be conveyed off by a pipe rising from near the bottom to the extreme height the water is designed always to be at, and there communicate with the drain: by these precautions, it is said, there will be no more of the surface of the water exposed to the external air than what is within those pipes and that of the pump. This method of forming water-cisterns may be found useful, cheap, and convenient, in many places where such water is necessary to be preserved pure and sweet.

**WATER COLORS**, in painting, are such colors as are only diluted and mixed up with gum water, in contradistinction to oil colors. See *COLOR MAKING*.

**WATER CRESSES**. See *SISYMBRIUM*.

**WATER FALLS**, in ornamental gardening, falls of water formed and introduced in pleasure or other grounds for the purpose of producing ornamental and picturesque effects. They are of different kinds and forms: sometimes of the nature of cascades, at other times contrived for the purpose of driving some sort of interesting machinery, so as to afford an agreeable and striking picture in the rural scenery of the place. They are usually constructed either by means of large rocky stones thrown rudely together into a sort of ridge, over which the water passes, or built in masonry in a careful and exact manner, according as the different nature of the circumstances and situations may require. Mr. Loudon, in his useful work on Country Residences, has well described and delineated several different modes of forming waterfalls. They should, he thinks, be natural, strong, and lasting, from the general form of the whole of the materials, the security and solidity of their foundations, and the quality of the work and materials used in building them.

**WATERFORD**, a county of Ireland, situated in the province of Munster. Its boundaries are, or

the north, the noble river Suir, which separates it from the counties of Tipperary and Kilkenny; on the west, the county of Cork; on the east, the Harbour of Waterford; and on the south, the Atlantic Ocean. Its greatest length is about fifty English miles, and its breadth about twenty-nine. The superficial contents are estimated at 471,281 statute acres. The population of the county, exclusive of the city, amounts to 128,000 souls, who are accommodated in 20,000 habitations.

Waterford county is divided into eight baronies, Cashbride, Coshmore, Decies-within-Drum, Decies-without-Drum, Gaultier, Glenaheiry, Middlethird, and Upperthird. The parochial division recognises seventy-three parishes; and the county returns four members to parliament, including the representatives for the city of Waterford and the borough of Dungarvan. The chief towns are, Waterford, Tallow, Limore, Cappoquin, Dungarvan, Tramore, part of Clonmel, Kilmarthomas, and Portlaw. The south and western districts are a good deal encumbered with mountains; the most remarkable of which are the Knock-Mele-Down range, rising to a height of 2700 feet above sea level; the Shihb Gune hills, containing abundance of iron-stone; Ardmore hills; the Monevally mountains, 2300 feet in height; and the elevated district called the Commons of Clonmel. The eastern portion of the county is low and fertile, inhabited by many wealthy proprietors, and beautified by several noble rivers, and many picturesque rivulets. The chief rivers are the Suir, the Black water, the Four-Mile Water, the Beal-lecky, the Oon-a shad, the Phinnick, the Licky, the Brickey, the Cladagh, the Calligan, the Bride, the Tay, and the Mahon, which falls into the sea at Bunmahon, near to which a valuable lead mine has lately been wrought. The sea coast of Waterford affords but few harbours; but one of these, Waterford Harbour, is quite unrivalled as a noble estuary, and is now an established packet station, having a noble pier 1000 feet in length, standing in five fathoms at low water, for the accommodation of packets plying between Dunmore and Pembroke Haven. See *DUNMORE*. Tramore Bay affords an agreeable strand for sea bathing, but an insecure station for shipping; and Dungarvan is a sheltered asylum for small craft. The Black-water is also navigable by small craft to a considerable distance. Lord Orrery asserts, that, in his time, it was navigable up to Mallow, but that is quite impracticable at present; so that the bed of the river must have filled much since that period. At the sea entrance of Waterford Harbour stands a light-house, called Hook Tower, exhibiting a fixed bright light: and within the harbour, at Duncannon Fort, is a light of a similar description. The ancient families of this county are the O'Feolans, Poers, M<sup>r</sup>Thomas, Boyles, Walshes, Aylwards, Wyases, Daltons, Waddings, and Shulochs. Christianity is said to have been introduced into this district by St. Declan, about thirty years previous to the mission of St. Patrick. The ruins of nearly thirty religious edifices are still visible, and the vast number formerly existing, at Lismore and Waterford, is fully authenticated by our ecclesiastical historians. There is one of those lofty round towers peculiar to Ireland, standing at Ardmore, in this county, which is in an excellent state of preservation. This particular tower is the case quoted by those antiquarians who



attributed the erection of these buildings to the early Christians, in consequence of having once been used as a belfry; but an inspection of Ardmore, as applicable to such a use, will immediately destroy the probability of the conjecture.

WATERFORD, a city and seaport town, the capital of the above county. It was anciently called Cuan-na-Grian, the harbour of the sun; also Port-largi, the port of the thigh, from the bend of the river Suir near the town resembling that part of the human frame. In consequence of a desperate battle fought there between the ancient Irish and the Danes, it was also named Glean-na-gleodh, i. e. the valley of lamentation. But the English invader substituted for these the appellation 'Waterford,' being merely a corruption of the Danish Vader Fiord, the Father's Harbour, i. e. Woden's, to whom the Danes had dedicated this place. The ancient city stood on the south side of the river Suir. It was built by the Danes in the year 879, but was destroyed by fire in 981. It was in the form of a triangle, enclosed by walls, having Reginald's (now King) Tower, Fuzesius Tower, and St. Martin's Castle at the three angles, and covered an area of fifteen statute acres. In 1171 it was enlarged by Strongbow, after the English invasion. Henry VIII. granted many privileges to this place. Richard II. landed and was crowned here in 1399: and king James II. embarked at this port for France, after his defeat at the battle of the Boyne. The history of the city of Waterford is closely interwoven with the history of Ireland from the reign of Henry II. to the period just mentioned. The town walls and ancient fortifications are no longer visible, with the exception of Reginald's Tower, which is still entire, and beside which the effigy of Strongbow, in dark limestone, stood until within a few years. Waterford is the see of a bishop, and it was united to the diocese of Lismore in 1363. The city formerly contained five monastic institutions, of which no ruins now remain. At present the cathedral of Christ Church, a modern structure, is its principal ecclesiastical edifice: it is spacious, but plain, and supports a lofty spire: it contains several interesting monuments. St. Olave's, St. Patrick's, and other churches, are also served regularly, but many of the ancient parish churches are in ruins. The parochial division of the county of the city of Waterford contains thirteen parishes, viz. Trinity within and without, St. John's within and without, St. Michael's, St. Olave's, St. Peter's, St. Stephen's, St. Patrick's hill, St. Nicholas, Killculiheen, Kilbany, and Killoteran. The superficial contents of this district amount to 4281 acres, the population to 28,679 souls, and the number of habitations to 4000. There is a classical school in St. Stephen's parish, under the superintendence of the learned Dr. Graham, which has attained a very high reputation: it was founded and endowed by the corporation. The corporation have endowed a poor school of thirty eight boys in the parish of Killoteran; and Sir John Mason endowed a blue-coat school in St. Michael's parish, to which his three daughters, who died unmarried, bequeathed legacies. The city is governed by a mayor, sheriffs, and recorder, and returns one member to the imperial parliament. There are several public buildings of architectural merit, and several institutions of solid worth and humane intention; the most remarkable of the latter class are Gore's charity, for

the protection and support of clergymen's widows, and the Fever Hospital, which has been conducted with a degree of successful care that has recommended its design and arrangement to be adopted as a model elsewhere. The bishop's palace and the Roman Catholic chapel are the most elegant elevations in the city; but there are other public establishments, as the gaol, new court-house, exchange, custom-house, assembly-rooms, school-house, churches, chapels, &c. The streets are generally narrow, but improvements in this way are daily in progress. The chief boast of Waterford, however, is her beautiful Quay, nearly a mile in length, and her noble river that rolls before her walls. The river Suir is navigable to the Quay of Waterford for vessels of considerable tonnage, and there is water to float them at all times: the river is crossed, above the Quay, by an extensive wooden bridge, built by Samuel Cox, the American engineer, and from the bridge to Clonmel the Suir is navigated by large barges, constructed for that particular trade. In this way Waterford is the place of import and export for a great portion of the south of Ireland, standing more conveniently towards England than either Limerick or Cork. This great trade, which Waterford must always command, is likely to be augmented by a railway, designed by Alexander Nimmo, esq., extending from this port to Limerick, with a branch to Carrick-on-Suir. Besides which the packet station, at Dunmore, will be the scene of more active operation when the pier now erecting at Pembroke shall have been completed. The trade of this port is various, both foreign and coastwise. It has steam communication with Liverpool; it exports butter, live stock (particularly hogs), hides, port, corn, &c. The approach, at the sea entrance, was difficult and dangerous, but the erection of the deep-water pier at Dunmore has removed the danger, as vessels may lie there securely until a convenient opportunity occur of sailing up the river, or of steering outwards. The banks of the river Suir, from the city to the junction of the rivers Barrow and Nore, are remarkably picturesque; they are much improved and adorned with seats and villas on both sides, for many miles. The view of the opposite county, from the Quay of Waterford, is probably the most agreeable panorama in the neighbourhood of any city in Ireland; and the best and most satisfactory view of the city itself is enjoyed from a rock called Cromwell's Port, immediately opposite the Quay, on the farther bank of the river. The ancient history of the county and city of Waterford are faithfully and minutely detailed in Smith's County History; Dublin, 1774. Those who have studied the topography of Ireland with much attention will soon perceive that the river Suir was more deserving of waiving the stranger to the capital of Ireland than her more favored sister, the Liffey; and a little consideration will soon satisfy the enquirer that the metropolis of this island could no where have been so happily situated as at Cheek Point, that singularly circumstanced spot where the Suir, the Barrow, and the Nore, unite their waters.

WATER-FURROW, in agriculture, a deep open furrow drawn in arable lands, or those in a state of tillage, for the purpose of conveying and taking off water, to prevent its stagnating and injuring the crops. The number of these furrows must depend on variations of surface and other circumstances.



so that the only general rule is to make them sufficiently numerous to prevent the water from standing on any part of the land in the wettest weather. In arable land water-furrows should be frequently examined during winter, to see that they are perfectly open and free; to secure which, the sides of the furrows should always be made to stand firm, and to have a good slope each way, a practice which, in many districts, is greatly neglected.

**WATER, HOLY**, which is made use of in the church of Rome, as also by the Greeks, and by the other Christians of the east of all denominations, is water with a mixture of salt, blessed by a priest according to a set form of benediction. It is used in the blessing of persons, things, and places; and is likewise considered as a ceremony to excite pious thoughts in the minds of the faithful. The priest, in blessing it, first, in the name of God, commands the devils not to hurt the persons who shall be sprinkled with it, nor to abuse the things, nor disquiet the places, which shall likewise be so sprinkled. He then prays that health, safety, and the favor of heaven may be enjoyed by such persons, and by those who shall use such things, or dwell in such places. Vestments, vessels, and other such things that are set apart for divine service, are sprinkled with it. It is sometimes sprinkled on cattle, with an intention to free or preserve them from diabolical enchantments; and in some ritual books there are prayers to be said on such occasions, by which the safety of such animals, as being a temporal blessing to the possessors, is begged of God, whose providential care is extended to all his creatures. The hope which Catholics entertain of obtaining such good effects from the devout use of holy water is grounded on the promise made to believers by Christ (St. Mark. xvi. 17), and on the general efficacy of the prayers of the church; the petition of which prayers God is often pleased to grant; though sometimes, in his providence, he sees it not expedient to do so.

**WATER HOUSE-LEEK**, in botany. See **PISTIA**.

**WATER LEAF**. See **HYDROPHYLLUM**.

**WATER LEMON**, a species of *passiflora*.

**WATER LILY**. See **NYMPHÆA**.

**WATER LILY, LESSER**, a species of *menyanthes*.

**WATER LINES OF A SHIP**, certain horizontal lines supposed to be drawn about the outside of a ship's bottom, close to the surface of the water in which she floats. They are accordingly higher or lower upon the bottom, in proportion to the depth of the column of water required to float her.

**WATERLOGGED**, in sea language, the state of a ship when, by receiving a great quantity of water into her hold, by leaking, &c., she has become heavy and inactive upon the sea, so as to yield without resistance to the effort of every wave rushing over her deck.

**WATER MELON**. See **ANGURIA**.

**WATER MELON** is also a species of *CUCURBITA*, which see.

**WATER, METHOD OF PRESERVING FRESH AT SEA**. The following method of preserving fresh water sweet during long voyages at sea, by Samuel Bentham, esq., appears in the Transactions of the Society for the Encouragement of Arts, Manufactures, and Commerce, who conferred on the author their gold medal:—"The mode in which I conceived fresh water might be preserved sweet," says Mr. Bentham, "was merely by keeping it in vessels of which the interior lining at least should be of such

a substance as should not be acted upon by the water, so as to become a cause of contamination. Accordingly on board two ships the greater part of the water was kept, not in casks, but in cases of tanks, which, though they were made of wood, on account of strength, were lined with metallic plates, of the kind manufactured by Mr. Charles Wyatt, of Bridge Street, under the denomination of tinned copper sheets; and the junctures of the plates or sheets were soldered together, so that the tightness of the cases depended entirely on the lining, the water having no where access to the wood. The shape of these cases was adapted to that of the hold of the ship, some of them being made to fit close under the platform, by which means the quantity of water stowed was considerably greater than could have been stowed in the same space by means of casks; and thereby the stowage room on board ship was very much increased. The quantity of water kept in this manner on board each ship was about forty tons divided into sixteen tanks; and there was likewise, on board each of the ships, about thirty tons stowed in casks as usual. The water in thirteen of the tanks on board one ship, and in all the tanks on board the other, was always as sweet as when first taken from the source; but in the other three of the tanks, on board one ship, the water was found to be more or less tainted as in the casks. This difference, however, is easily accounted for, by supposing that the water of these tanks was contaminated before it was put into them; for in fact the whole of the water was brought on board in casks, for the purpose of filling the tanks, and no particular care was taken to taste the water at the time of taking it on board. After the water kept in this manner had remained on board a length of time which was deemed sufficient for experiment, it was used out, and the tanks were replenished as occasion required; but in some of the tanks, on board one ship at least, the original water had remained three years and a half."

**WATER MILFOIL**, a species of *hottonia*.

**WATER MILFOIL**. See **MYRIOPHYLLUM**.

**WATER OUZEL**. See **TURDUS**.

**WATER, OXYGENIZED**, or deutoxide of hydrogen, is an interesting compound lately formed by M. Thenard, an account of which he published in the tenth volume of the *Annales de Chimie et de Physique*. The deutoxide of barium being dissolved in water, and sulphuric acid added, the protoxide of barium or barytes falls down, leaving the oxygen combined with the water. It contains, at 32° Fahrenheit when saturated, twice the quantity of oxygen of common water; that is to say, a cubic inch absorbs 662 cubic inches = 224.46 gr. forming 476.98 grains, and acquires a specific gravity of 1.453. Hence 1.0 in volume becomes apparently 1.3; containing 1324 volumes of oxygen; and one volume therefore contains very nearly 1000 volumes.

In consequence of this great density, when it is poured into common water, we see it fall down through that liquid like a sort of syrup, though it is very soluble in it. It attacks the epidermis almost instantly, and produces a prickling pain, the duration of which varies, according to the quantity of the liquid applied to the skin. If this quantity be too great, or if the liquid be renewed, the skin itself is attacked and destroyed. When applied to the tongue it whitens it also, thickens the saliva, and produces in the organs of taste a sensation difficult to express, but one which approaches to that



of tartar emetic. Its action on oxide of silver is exceedingly violent. Every drop of the liquid let fall on the dry oxide produces a real explosion; and so much heat is evolved, that, if the experiment be made in a dark place, there is a very sensible disengagement of light. Besides the oxide of silver, there are several other oxides, which act with violence on oxygenated water; for example, the peroxide of manganese, that of cobalt, the oxides of lead, platinum, gold, iridium, rhodium, palladium. Several metals in a state of extreme division occasion the same phenomenon; such as silver, platinum, gold, osmium, rhodium, palladium. In all the preceding cases, it is always the oxygen united to the water which is disengaged, and sometimes likewise that of the oxide; but in others a portion of the oxygen unites with the metal itself. This is the case when arsenic, molybdenum, tungsten, or selenium is employed. These metals are often acidified with the production of light. The acids render the oxygenated water more stable. Gold in a state of extreme division acts with great force on pure oxygenated water; yet it has no action on that liquid, if it be mixed with a little sulphuric acid.

M. Thenard took pure oxygenated water, and diluted it, so that it contained only eight times its volume of oxygen. He passed twenty-two measures of it into a tube filled with mercury. He then introduced a little fibrin, quite white, and recently extracted from blood. The oxygen began instantly to be disengaged from the water; the mercury in the tube sunk; at the end of six minutes the water was completely disoxygenated; for it no longer effervesced with oxide of silver. Having then measured the gas disengaged, he found it 176 measures =  $8 \times 22$ , that is to say, as much as the liquid contained. This gas contained neither carbonic acid nor azote. It was pure oxygen. The same fibrin, placed in contact with new portions of oxygenated water, acted in the same manner. Urea, albumen, liquid or solid, and gelatin, do not disengage oxygen from water, even very much oxygenated. But the tissue of the lungs cut into thin slices and well washed, that of the kidneys and the spleen, drive the oxygen out of the water, with as much facility, at least, as fibrin does. The skin and the veins possess the same property, but in a weaker degree. These results are equally interesting and mysterious.

WATER PEPPER, a species of *polygonum*.

WATER PIMPERNEL, a species of *veronica*.

WATER PIMPERNEL, ROUND-LEAVED. See *SAMOLUS*.

WATER PLANTAIN. See *ALISMA*.

WATER PLANTAIN, LEAST, in botany, is a species of *limosella*; which, being omitted in its order, it is proper to describe here: *Limosella*, least water plantain, is a genus of the class of *didynamia*, and order of *angiospermia*; and in the natural method, ranking under the twenty-first order, *precie*. The plants of this genus, with all others of the same order, constantly have their seeds in a pericarpium: they have a simple stigma, and spreading corollæ.

WATER POTS, in Spain, called *Alcarazas*, are earthen vessels, extremely porous, destined to cool the water for drinking, by means of the continual evaporation which takes place on their whole surface. Every house in Madrid is provided with these vessels, which are known to have been introduced into the country by the Arabs, and to be

equally used in Syria, Persia, China, Egypt, &c. Those of Madrid are made of a kind of marly earth, found on the banks of the river Tanusoro, near the town of Auduxar, in Andalusia. On being carefully analysed it is found to contain about one-third of calcareous earth, a third of alumine, a third of silice, and a very small proportion of iron. The process for manufacturing the *alcarazas* is as follows:—After the earth has been dried, it is separated into small lumps about the size of walnuts, which are thrown into a tub or vat, covered with water, and left to soak during twelve hours, after which it is kneaded. After it has been well wrought, it is spread in layers of about six fingers' depth on a smooth surface covered with brick, over which has been sprinkled a small quantity of sifted ashes. Here it is suffered to remain until it has become chapped: it is then cleared from the ashes, carried to a clean flagged floor, where it receives the addition of about the twentieth part of its weight of sea-salt, if intended for the fabrication of large jars, or only a fortieth if destined to be made into vessels of smaller size. An observant traveller says that a quantity of sand is also added. This mixture is kneaded anew with the feet, and then wrought on the wheel, after having been first carefully cleaned from any bits of straw or gravel which might have adhered to it. The vessels, when made, are placed in the potter's oven, but not more than half baked. It is to this circumstance, and to the marine salt which they contain, that they are indebted for their porosity; for the very same earth is wrought into common pottery, without the addition of the salt, or the diminution of the baking. In the hottest weather, water put into one of these vessels, and placed in the open air, more particularly in a current of air, becomes in a very short time agreeably cool. In Estremadura, at a place called *Salvatierra*, are made red vases called *bucaros*, which serve also to preserve water cool. They impart to it a disagreeable clayey taste, which is, however, much admired by the women of Madrid. Girls are said to be particularly fond of this species of pottery, and eat it in the green sickness. Nearly similar vases are used in Portugal for moistening snuff, which is done by placing them in water after they have been filled with the snuff.

WATER PURSLANE, in botany. See *PEPLIS*.

WATER RADISH. See *SISYMBRIUM*.

WATER RAT. See *MUS*.

WATER ROCKET. See *SISYMBRIUM*.

WATER SAIL, a small sail spread occasionally under the lower studding-sail, or driver-boom, in a fair wind and smooth sea.

WATER SPOUT, an extraordinary meteor consisting of a large mass of water collected into a sort of column, and moved with rapidity along the surface of the sea. See *METEOROLOGY*.

WATER VIOLET. See *HOTTONIA*.

WATERLAND (Dr. Daniel), a learned English divine who distinguished himself greatly in theological controversies, was born in 1683 at Willsby, near Rasen, in Lincolnshire, of which his father, Erasmus Waterland, was many years rector. He was educated at Magdalen College, Cambridge, where he drew up a useful tract, which went through several editions, entitled *Advice to a Young Student*, with a method of Study for the first four years. In 1713 he became master of the college, was soon after appointed chaplain to George I., and in 1720 preached the first course of lectures



founded by lady Moyer in defence of our Lord's divinity. He went through several promotions, and at his death, in 1740, was canon of Windsor, archdeacon of Middlesex, and vicar of Twickenham. Besides his controversial writings, he published two volumes of sermons; but his chief work is his *Vindication of the Doctrine of the Trinity*, against Dr. Clarke; with his *Defence of that work* in reply to Clarke.

**WATERLAND**, an island in the South Pacific Ocean, discovered by Le Maire and Schouten, in 1616. It is represented as a low, sandy, uninhabited island, full of rocks, with plenty of trees on the border, but neither cocoa-nuts nor palmetoes. Some cresses and Indian salad were found, and some fresh water; but no soundings for anchorage were found. Long. 149° 30' W., lat. 14° 46' S.

**WATER-LODGED**, the state of a ship when, by receiving a great quantity of water into the hold by leaking, &c., she has become heavy upon the sea, so as to yield without resistance to every wave rushing over her decks. As, in this dangerous situation, the centre of gravity is no longer fixed, but fluctuating, the stability of the ship is utterly lost: she is therefore almost totally deprived of the use of her sails, which would operate to overset her, or press her head under water. Hence there is no resource for the crew but to free her by the pumps, or to abandon her as soon as possible.

**WATERLOO** (Anthony), a famous Dutch painter, born at Utrecht in the sixteenth century. His paintings are admirably executed.

**WATERLOO**, a village of the Netherlands, ten miles south of Brussels, adjoins a spot where Marlborough, had he not been withheld by the Dutch deputies, might, in 1705, have defeated a French army, and have conferred on this village a similar renown to that attached to it since the memorable 18th of June 1815. We can only here afford space for a brief sketch of this memorable conflict. The forces engaged were, until late in the evening, nearly equal, the French reckoning 71,000 men, while the troops under lord Wellington were about 58,000; and those under Bulow, who came up early in the afternoon, were about 15,000 men. In regard to position, also, there was no great advantage, the ground on which the British were drawn up rising by a gentle ascent. In pursuance of his plan of diverting his opponents from the real attack, Buonaparte ordered an assault towards the right of the British, on the Chateau de Goumond, a post which, though hardly entitled to the name of a military station, was defended with such firmness that the French could gain possession only of the plantation, and failed in their attempts to drive the British from the position. This encounter, partial but sanguinary, took place between eleven and one o'clock. It was speedily followed by a more serious onset on the British left and centre. The British plan of battle, as regarded the infantry, was defensive; their battalions drawn up in squares, and protected by a number of field-pieces, awaited the attack; but their cavalry stood ready to seize any favorable opening to advance. This occurred, or was believed to occur on more than one occasion, in the early part of the battle; and conflicts took place with that varied result which will always prevail when, in armies of equal or nearly equal discipline, there remain regiments in reserve. A charge made by a body of British horse, on the flank of a French column, when marching from left to right,

was attended with great success; but this was soon found to be dearly purchased; the field was covered with a number, apparently equal, of French and British uniforms; and the French cavalry were repulsed only by the arrival of a fresh body of British dragoons. On the part of the British infantry, the case was different; the defensive plan being strictly followed, the resistance was almost uniformly successful. The French generals witnessed a dreadful carnage; but observing that the British never advanced, and being unable to see clearly the whole of their battalions, they in particular Ney, remained unconscious of their strength, and ventured between four and five o'clock to bring forward to the charge their cavalry reserve, the imperial guards. Twice did these intrepid horsemen rush on the British field-pieces and battalions. Though partially successful against the former, they failed against the latter; and being galled by their fire, both of cannon and musquetry, were obliged each time to retreat with great loss. 'This charge,' said Buonaparte, who stood on high ground at some distance, 'is too early by an hour.' 'Ney,' rejoined Soult, 'commits us as he did at Jena.' After two hours more of firing and partial attacks, Buonaparte thought it time to bring forward his final reserve, the imperial foot guard. This took place at seven o'clock, and brings us to the most remarkable juncture of the battle; that juncture in which, on almost every former occasion, whether against Austrians, Prussians, or Russians, the attack of a corps fresh and high spirited, caused the rout of the opposing line. Here, however, the British troops had been well supported; and, though fatigued, were not shaken. The blanks in their ranks (above 10,000 men had by this time been killed and wounded) had been successively filled by drafts from the reserve; and, if few expected victory, all were determined rather to fall than yield. Their general had higher hopes; he knew that the Prussians were approaching; and making the squares dissolve their order, and form into a continuous line, they obtained in their musquetry fire a great advantage over an enemy formed in close column. Affairs were now drawing to a crisis. Lord Wellington, observing the march of Blucher, ordered a forward movement; and the French, seeing on one side the British advance, on the other that the high road in their rear was on the point of being forced by the Prussians, relinquished the field of battle, and sought safety in a retreat, which soon became a disorderly flight.

**WATERSAY**, one of the Western Islands of Scotland, lying one mile south of that of Barra. It is three miles long and one broad, and pretty fertile. It has an excellent harbour, fit for sheltering vessels of any size, and in all weathers, from storms, being defended from all winds by the islands of Sanderay and Maldonich. It is inhabited by ten families; and belongs to Macniel of Barra. It lies about a mile from south Uist, from which it is separated by Christmas Bay.

**WATERWORKS**. See **HYDRAULICS**, and **HYDROSTATICS**.

**WATFORD**, a market-town and parish in Cashio hundred, Herts, on the banks of the Colne, eighteen miles and a half north-west from London. The Colne, which nearly surrounds the town, has several mills on its banks; but the principal manufacture is the throwing of silk, for which here is a very extensive machine, worked by water.



WATS (Gilbert), D.D., a learned divine, born in Yorkshire, and educated at Lincoln College, Oxford, where he became a fellow, and D.D. He translated lord Verulam's Treatise De Augmentis Scientiarum, 4to., and Davilla's History of the Civil Wars in France. He died in 1657.

WATSON (Henry), an eminent surgeon, born at London in 1702. He became famous as a lecturer on anatomy, and was chosen surgeon of Westminster Hospital. He published an Account of the Absorbents of the Urinary Bladder, and some papers in the Philosophical Transactions. He died in 1793, aged ninety-one.

WATSON (John), F.S.A., an English divine, born at Presbury in Cheshire, in 1724; and educated at Brazen Nose College, Oxford, where he became a fellow. In 1769, after several inferior promotions, he became rector of Stockport; and in 1770 chaplain to the earl of Dysart. He was twice married, and was made a J. P. for Cheshire and Lancashire. His chief work was his History of Halifax, 1775. He died March 14th, 1783, while preparing for the press A History of the Earls of Warren and Surrey, aged fifty-nine.

WATSON (Dr. Robert), an elegant historian, was born at St. Andrew's, in Scotland, about 1730. He was the son of an apothecary there, who was also a brewer. Having gone through the usual course, at the school or university of that city, he went first to the university of Glasgow, and afterwards to that of Edinburgh. He pursued his studies with ardor, eight hours every day during the rest of his life. An emulation began to prevail of writing pure and elegant English. Mr. Watson studied the principles of grammar; and by these, with the authority of the best English writers, formed a course of lectures on style, and another on rhetoric; and in Edinburgh he met with the approbation and friendship of lord Kames, Mr. Hume, and other men of learning. At this time he had become a preacher; and, a vacancy happening in a church at St. Andrew's, he offered himself a candidate, but was disappointed. Mr. Rymer, who then taught logic in St. Salvador's College, being in a very infirm state of health, Mr. Watson purchased the succession to Mr. Rymer's place; and, with the consent of the other masters, was appointed professor of logic. He obtained also a patent from the crown, constituting him professor. The study of logic, in St. Andrew's, had been till now confined to syllogisms, modes, &c. Mr. Watson prepared and read to his students a course of metaphysics and logics on the most enlightened plan. By his History of Philip II. Dr. Watson attained a considerable degree of celebrity; and his History of Philip III., published after his death, has added to his fame. Of this last performance, however, he only lived to complete the first four books. The last two were written by the editor of his MSS.

WATSON (Thomas), M.A., a nonconformist divine of the seventeenth century, educated and graduated at Emanuel College, Cambridge. He became minister of St. Stephen's, Walbrook, during the republic, but was ejected in 1663. He wrote A Body of Divinity; and A Course of Sermons on the Assembly's Catechism, in one volume, folio, and other tracts on theology. He died in 1673.

WATSON (Sir William), M.D., and F.R.S., an eminent botanist, born and educated at London about 1700; and bred an apothecary. In 1738

he married, and began business. In 1741 he was admitted F.R.S.; to whose Philosophical Transactions he communicated many valuable papers. In 1745 he was honored with the Copley medal for his discoveries in electricity. In 1757 he was created M.D., by the universities of Halle and Wirtemberg. In 1762 he was appointed a physician in the Foundling Hospital; and in 1784 a Fel. Reg. Col. In 1786 he was knighted. He died in 1787. His Tracts on Electricity make one vol. 8vo.

WATSON (Richard), D.D., a late celebrated English prelate, was born at Heversham in Westmorland, in 1737. His father was a clergyman, and master of a free grammar school, where the son received his education, until in 1754 he became a sizar of Trinity College, Cambridge. Here he was at once distinguished for his intense application to study, and for the singularity of his dress, which consisted of a coarse mottled Westmorland coat, and blue yarn stockings. He regularly took his degrees, became a college tutor, and in 1760, obtained a fellowship. In 1764 he was elected professor of chemistry, when he first applied himself to the study of that science, and with great success, as appears from the five volumes of Chemical Essays which he subsequently published. On the death of Dr. Rutherford, in 1771, he became regius professor of divinity. He distinguished himself by a display of his political opinions, in a sermon preached before the university on the anniversary of the Revolution, entitled The Principles of the Revolution Vindicated. A short time previous to this, Dr. Watson appeared with advantage in the field of controversy as the opponent of Gibbon, to whom he addressed a series of letters, entitled an Apology for Christianity. The patronage of the duke of Rutland was exerted to obtain his promotion to the see of Llandaff in 1782; and he was permitted to hold at the same time the archdeaconry of Ely, his professorship, and other preferments. Shortly after, he addressed to the archbishop of Canterbury an unacceptable letter containing a project for equalizing the value of church benefices. In 1785 he published a collection of Theological Tracts, in 6 vols. 8vo. The following year he experienced a large addition to his income by the bequest of a valuable estate from Mr. Luther, of Ongar in Essex, one of his Cambridge pupils. During the illness of the late king, in 1788, bishop Watson, in a speech in the house of lords, strongly defended the right of the prince of Wales to the regency, in opposition to Mr. Pitt. He never obtained any farther promotion. In 1796 the bishop appeared a second time as the defender of revealed religion, in his Apology for the Bible, designed as an answer to Paine's Age of Reason; and in 1798 published An Address to the People of Great Britain, in which he animadverted on the danger which threatened this country, in common with other parts of Europe, from the influence of those principles which had occasioned the Revolution in France. Gilbert Wakefield, having published a reply to this address, was prosecuted for sedition, and sentenced to imprisonment; but bishop Watson took no part whatsoever in the proceedings. Though he always continued to be the advocate of liberality; his fears from the ascendancy of French principles were strongly expressed in a publication which he issued under the title of The Substance of a Speech intended to have been



spoken in the House of Lords, November 22d, 1803. The latter part of his life was chiefly spent in retirement at Calgarth-park, a seat near the lakes of his native county, where he amused himself with making extensive plantations of timber. He died at that place, July 4th, 1816. Besides the works already mentioned, he published papers in the Philosophical Transactions; Sermons; and Theological Essays: and after his death his Memoirs, written by himself, were edited by his son.—Universal Magazine. Rees's Cyclopædia.

WATT (James), F. R. S., distinguished especially by his improvements in the steam-engine, was the son of a tradesman at Greenock, and was born in 1736. Brought up to the occupation of a mathematical instrument maker, he in that capacity became attached to the university of Glasgow, in which he had apartments, where he resided till 1736. Having now entered into the married state, he settled in business for himself, and in 1764 conceived the idea of improving the steam-engine, adopted the profession of a civil engineer, and he was frequently employed in making surveys for canals, &c. To facilitate his labors he invented a new micrometer, and a machine for making drawings in perspective. In 1774 he removed to the vicinity of Birmingham, where he entered into partnership with Mr. Boulton, in conjunction with whom he carried on his improvements in the steam-engine, which he brought to great perfection. Here he became associated with Dr. Priestley and other philosophical experimentalists; and shared in the chemical researches which they prosecuted. Admitted a fellow of the Royal Society, he contributed to its Transactions an interesting paper, entitled Thoughts on the Constituent Parts of Water, and of Dephlogisticated Air; and another On a new Method of preparing a Test Liquor to show the Presence of Acids and Alkalies in Chemical Mixtures. Mr. Watt was also a fellow of the Royal Society of Edinburgh; and in 1806 received from the university of Glasgow the honorary degree of LL.D. Various inventions of great practical utility originated from his ingenuity. His death took place August 25th, 1819.

WATTLE, *n. s. & v. a.* From Germ. *waghelen*, to shake.—Skinner. The barbs, or loose red flesh, that hangs below the cock's bill; a hurdle: to bind or plat with twigs; to correct. Obsolete.

A plough was found in a very deep bog, and a hedge *wattled* standing. Mortimer.

The barbel is so called, by reason of his barb, or wattles, at his mouth, which is under his nose or chops. Walton.

The cock's comb and wattles are an ornament becoming his martial spirit. More.

WATTS (Dr. Isaac), an eminent dissenting minister, born at Southampton in 1674. In 1690 he was sent to London for education under the Rev. Thomas Rowe; and in 1696 was himself engaged as tutor to the son of Sir John Hartopp, baronet, at Stoke Newington. He began to preach in 1698, and met with general applause; and, after officiating for three years as an assistant to the Rev. Dr. Isaac Chauncy, he succeeded him in his pastoral charge in 1702, and continued to preside over that church as long as he lived. Though his whole income did not amount to £100 a year, he allotted one-third of it to the poor. He died in 1748. His numerous works have rendered his name famous throughout Europe and America; and they have been translated into various languages. His

Lyric Poems, his Psalms and Hymns, and his Divine Songs for Children, are a sufficient proof of his poetical talents, and have had an amazing sale. His Logic and Philosophy have been much admired. He also wrote books upon various other subjects, and printed many sermons. After his death, his works were collected, and published in 6 vols. 4to.

|                                       |  |
|---------------------------------------|--|
| WAVE, <i>n. s., v. n., &amp;</i>      | Sax. <i>pæge</i> ; Belgic <i>waegh</i> ; Teutonic <i>wage</i> ; Fr. <i>vague</i> . Water raised above the general level; billow; unevenness: to wave, or waver, is to play loosely to and fro; be in an unsettled state: as a verb active, to wave is to waft; drive into inequalities; move slowly; beckon; direct by a wafting motion; put off or aside (see WAIVER): a waverer is one unsettled: wavy, rising in waves; undulating: waves or waes is used by Spenser for waves. |
| WA'VER, <i>v. n.</i> [ <i>v. a.</i> ] |  |
| WA'VERER, <i>n. s.</i>                |  |
| WA'VY, <i>adj.</i>                    |  |
| WAWES, or WAES, <i>n. s.</i>          |  |

Another did the dying brands repair  
With iron tongs, and sprinkled oft the same  
With liquid waes. Spenser.

They wave in and out, no way sufficiently grounded,  
no way resolved, what to think, speak, or write. Hooker.

Remember where we are;  
In France, among a fickle, wavering nation. Shakspeare.

He had a thousand noses,  
Horns welked and wawed like the enridged sea. Id.

Come, young waverer, come and go with me;  
In one respect I'll thy assistant be. Id.

Look with what courteous action  
It waves you to a more removed ground:  
But do not go with it. Id.

In safe conduct of these  
Did thirtie hollow-bottomed barks divide the wavy seas. Chapman.

The waves that rise would drown the highest hill;  
But at thy check they flee; and when they hear  
Thy thundering voice, they post to do thy will. Wotton.

He resolved not to wave his way upon this reason,  
that if he should but once, by such a diversion, make  
his enemy believe he were afraid of danger, he should  
never live without. Id.

Has any disloyalty dared to feign that religion wavers? They foully mistake; as commonly they do, that are more cunning in other men's lives than in their own: 'tis not religion wavers, but their loyalty. Holyday.

They wawed their fiery swords, and in the air  
Made horrid circles. Milton.

Amidst these toils succeeds the balmy night;  
Now hissing waters the quenched guns restore;  
And weary waves, withdrawing from the fight,  
Are lulled, and pant upon the silent shore. Dryden.

For thee the ocean smiles, and smooths her wavy  
breast;  
And heaven itself with more serene and purer light is  
blest. Id.

Since she her interest for the nation's waved,  
Then I, who saved the king, the nation saved. Id.

Faith as absolutely determines our minds, and as  
perfectly excludes all wavering, as our knowledge itself;  
and we may as well doubt of our own being, as we can  
whether any revelation from God be true. Locke.

He beckoned to me, and, by the waving of his hand,  
directed me to approach the place where he sat. Addison.

Let her glad vallies smile with wavy corn;  
Let fleecy flocks her rising hills adorn. Prior.

What if Hospinian should have said that Luther  
wavered in the point of the sacrament? does it follow  
that he really did so? Atterbury.

The wave behind impels the wave before. Pope.

**WAVED**, in heraldry, is said of a bordure, or any ordinary, or charge, in a coat of arms, having its outlines indented in manner of the rising and falling of waves: it is used to denote that the first of the family, in whose arms it stands, acquired its honor by sea service.

**WAVELITE**, in mineralogy. Color grayish-white. Imitative and crystallised, in very oblique four-sided prisms, flatly bevelled on the extremities, or truncated on the obtuse lateral edges. Shining, pearly. Fragments wedge-shaped. Translucent. As hard as flint spar. Brittle. Specific gravity 2.3 to 2.8. Its constituents are, alumina 70, lime 1.4, water 26.2.—Davy. It is said to contain also a small quantity of fluoracic acid. It occurs in veins along with flint spar, quartz, tin-stone, and copper pyrites in granite, at St. Austle in Cornwall. At Barnstaple in Devonshire, where it was first found by Dr. Wavell, it traverses slate clay, in the form of small contemporaneous veins. It has been found in rocks of slate-clay near Loch Humphrey, Dumbartonshire.

**WAVEY**, in heraldry, one of the crooked lines of which ordinaries are frequently borne in coat armour as,



**WAWL**, *v. n.* Sax. *wa*, grief. To cry; howl.

The first time that we smell the air,

We *wawle* and cry.

*Shakspeare.*

**WAX**, *n. s., v. a., & v. n.* Sax. *waxe*; Danish

**WAXEN**, *adj.*

*Sax.* *goth.* and *Swed.*

**war**. The thick tenacious matter gathered by the bee; any similar tenacious matter: to smear or join with wax; to grow; increase (used of the moon particularly); to change: waxen is made of wax.

Careless the man soon *war*, and his wit weak

Was overcome of things that did him please. *Spenser.*

Where things have been instituted, which, being convenient and good at the first, do afterward in process of time *war* otherwise, we make no doubt but they may be altered.

*Hooker.*

Art thou like the adder *waxen* deaf?

*Shakspeare.*

Flowers removed, *war* greater, because the nourishment is more easily come by in the loose earth. *Bacon.*

This answer given, Argantes wild drew near,

Trembling for ire, and *waxing* pale for rage;

Nor could he hold.

*Fairfax.*

They *wax* and wane

\*Twixt thrift and penury.

*Carew.*

I can yet shoot beams, whose heat can melt

The *waxen* rings of this ambitious boy.

*Denham.*

Swarming next appeared

The female bee, that feeds her husband drone

Deliciously, and builds her *waxen* cells,

With honey stored.

*Milton.*

They gave us food which may with nectar vie;

And *war* that does the absent sun supply.

*Roscom.*

All the magistrates, every new or full moon, give honour to Confucius with bowings, *war* candles, and incense.

*Stillington.*

He formed the reeds, proportioned as they are,

Unequal in their length, and *waxed* with care;

They still retain the name of his ungrateful fair.

*Dryden.*

Their manners *war* more and more corrupt, in proportion as their blessings abound.

*Atterbury.*

A fontanel in her neck was much inflamed, and many *war*-kernels about it.

*Wiseman.*

**Wax** consists of an acid spirit of a nauseous taste, and an oil, or butter, which is emollient, laxative, and anodyne.

*Arbuthnot.*

**Wax**, or **BEES' Wax**, in natural history, a firm and solid substance, moderately heavy, and of a fine yellow color, formed by the bees from the pollen of flowers. See **Apis**, and **BEE**. The best sort is that of a lively yellow color, and agreeable smell, somewhat like that of honey; when new, it is toughish, yet easy to break; but by age it becomes harder and more brittle, loses its fine color and in a great measure its smell.

Proust contends that the bloom on fruit is real wax; and that it is wax spread over leaves, which prevents them from being wetted, as on the cabbage-leaf. He likewise finds it in the fecula of some vegetables, particularly in that of the small house-leek, in which it abounds. Huber, however, asserts, from his observations, that the wax in bee-hives is an artificial production, made by the bees from honey; that they cannot procure it unless they have honey or sugar for the purpose; and that raw sugar affords more than honey.

It was long considered as a resin, from some properties common to it with resins. Like them, it furnishes an oil and an acid by distillation, and is soluble in all oils; but in several respects it differs sensibly from resins. Like these, wax has not a strong aromatic taste and smell, but a very weak smell, and, when pure, no taste. With the heat of boiling water no principles are distilled from it; whereas, with that heat, some essential oil, or at least a spirituous rectifier, is obtained from every resin. Farther, wax is less soluble in alcohol. If wax be distilled with a heat greater than that of boiling water, it may be decomposed, but not so easily as resins can. By this distillation, a small quantity of water is first separated from the wax, and then some very volatile and very penetrating acid, accompanied with a small quantity of a very fluid and very odiferous oil. As the distillation advances, the acid becomes more and more strong, and the oil more and more thick, till its consistence is such that it becomes solid in the receiver, and is then called butter of wax. When the distillation is finished, nothing remains but a small quantity of coal, which is almost incombustible.

Wax cannot be kindled, unless it is previously heated and reduced into vapors; in which respect it resembles fat oils. The oil of butter of wax may by repeated distillations be attenuated and rendered more and more fluid, because some portion of acid is thereby separated from these substances; which effect is similar to what happens in the distillation of other oils and oily concretes: but this remarkable effect attends the repeated distillation of oil and butter of wax, that they become more and more soluble in alcohol; and that they never acquire greater consistence by evaporation of their more fluid parts. Boerhaave kept butter of wax in a glass vessel open, or carelessly closed, during twenty years, without acquiring a more solid consistence. It may be remarked that wax, its butter, and its oil, differ entirely from essential oils and resins in all the above-mentioned properties, and that in all these they perfectly resemble sweet oils. Hence Macquer concludes that wax resembles resins only in being an oil rendered concrete by an acid; but that it differs essentially from these in the kind of the oil, which in resins is of the nature of essential oils, while in wax and in other analogous oily concretions (as butter of milk, butter of cocoa, fat of animals, spermaceti, and myrtle-wax), it is of the nature of mild unctuous oils, that are



not aromatic, and not volatile, and are obtained from vegetables by expression. It seems probable that the acidifying principle, or oxygen, and not an actual acid, may be the leading cause of the solidity, or low fusibility of wax. Wax is very useful, especially as a better material than any other for candles.

Wax may be deprived of its natural yellow disagreeable color, and be perfectly whitened, by exposure to the united action of air and water, by which method the color of many substances may be destroyed.

The art of bleaching wax consists in increasing its surface; for which purpose it must be melted with a degree of heat not sufficient to alter its quality, in a caldron so disposed that the melted wax may flow gradually through a pipe at the bottom of the caldron into a large tub filled with water, in which is fitted a large wooden cylinder, that turns continually round its axis, and upon which the melted wax falls. As the surface of this cylinder is always moistened with cold water, the wax falling upon it does not adhere to it, but quickly becomes solid and flat, and acquires the form of ribbands. The continual rotation of the cylinder carries off these ribbands as fast as they are formed, and distributes them through the tub. When all the wax that is to be whitened is thus formed, it is put upon large frames covered with linen cloth, which are supported about a foot and a half above the ground, in a situation exposed to the air, the dew, and the sun. The thickness of the several ribbands thus placed upon the frames ought not to exceed an inch and a half; and they ought to be moved from time to time, that they may all be equally exposed to the action of the air. If the weather be favorable, the color will be changed in the space of some days. It is then to be re-melted and formed into ribbands, and exposed to the action of the air as before. These operations are to be repeated till the wax is rendered perfectly white, and then it is to be melted into cakes, or formed into candles.

Wax is composed, according to MM. Gay Lussac and Thenard, of

|                |         |
|----------------|---------|
| Oxygen . . .   | 5.544   |
| Hydrogen . . . | 12.672  |
| Carbon . . .   | 81.784  |
|                | <hr/>   |
|                | 100.000 |

#### See CERIN.

By my analysis wax consists in 100 parts of,

|                |        |          |       |       |
|----------------|--------|----------|-------|-------|
| Carbon . . .   | 80.69  | 13 atoms | 9.75  | 80.4  |
| Hydrogen . . . | 11.37  | 11       | 1.375 | 11.3  |
| Oxygen . . .   | 7.94   | 1        | 1.000 | 8.3   |
|                | <hr/>  |          |       | <hr/> |
|                | 100.00 |          |       | 100.0 |

Or, in other words, of 11 atoms olefant gas + 1 atom carbonic oxide + 1 atom carbon. Had the experiment given a very little more hydrogen we should have had wax as consisting of 12 atoms olefant gas + 1 atom carbonic oxide.—Philosophical Transactions for 1822.

WAX CANDLES, candles made of bees' wax, or flaxen wicks, slightly twisted, and covered with white or yellow wax. Of these there are several kinds; some of a conical figure, used to illuminate churches, and in processions, funeral ceremonies, &c.; others of a cylindrical form, used on ordinary occasions. The first are either made with a ladle, or by the hand. 1. To make wax candles

by the ladle: the wicks being prepared, twelve of them are tied by the neck at equal distances, round an iron circle suspended over a large basin of copper tinned, and full of melted wax: a large ladleful of this wax is poured gently on the tops of the wicks, one after another, and this operation is continued till the candle acquire its destined bigness: with this precaution, that the three first ladlefuls be poured on at the top of the wick; the fourth at the height of three-fourths, the fifth at one-half, and the sixth at one-fourth, to give the candle its pyramidal form; though we should think a conical mould would make the form more accurately pyramidal. Then the candles are taken down, kept warm, and rolled and smoothed upon a walnut tree table, with a long square instrument of box, smooth at the bottom. 2. As to the method of making wax candles by the hand, they begin to soften the wax by working it several times in hot water, in a narrow but deep caldron. A piece of the wax is then taken out, and disposed by little and little around the wick, which is hung on a hook in the wall by the extremity opposite to the neck; so that they begin with the big end, diminishing still as they descend towards the neck. In other respects the method is nearly the same as in the former case; only, in the former case, water is always used to moisten the various instruments, to prevent the wax from sticking; and in the latter oil of olives, or lard, for the hands, &c. The cylindrical wax candles are either made as the former, or with a ladle, or drawn.

WAX CANDLES, DRAWN, are so called, because they are actually drawn in the manner of wire, by means of two large rollers of wood, turned by a handle, which, turning backward and forward several times, pass the wick through melted wax contained in a brassen basin; and at the same time through the holes of an instrument, like the pierced drawing irons used for drawing wire, fastened at one side of the basin.

WAX, SEALING, or SPANISH WAX, is a composition of gum lac, melted and prepared with resins, and colored with some suitable pigment. There are two kinds of sealing wax in use; the one hard, intended for sealing letters, and other such purposes; the other soft, designed for receiving the impressions of seals of office to charters, patents, and such written instruments. The best hard red sealing wax is made by mixing two parts of shell lac, well powdered, and resin and vermilion, powdered, of each one part, and melting this combined powder over a gentle fire; and, when the ingredients seem thoroughly incorporated, working the wax into sticks. Seed lac may be substituted for the shell lac; and, instead of resin, boiled Venice turpentine may be used. A coarser, hard, red sealing wax, may be made, by mixing two parts of resin, and of shell lac, or vermilion and red lead, mixed in the proportion of one part of the vermilion to two of the red lead, of each one part; and proceeding as in the former preparation. For a cheaper kind, the vermilion may be omitted, and the shell lac also, for very coarse uses. Wax of other colors is made by substituting other coloring matters for vermilion, as verditer for blue, ivory black for black wax. For uncolored, soft sealing wax, take of bees' wax, one pound; of turpentine three ounces; and of olive oil, one ounce; place them in a proper vessel over the fire, and let them boil for some time; and the wax will be then fit



to be formed into rolls or cakes for use. For red, black, green, blue, yellow, and purple soft sealing wax, add to the preceding composition an ounce or more of any ingredients directed above for coloring the hard sealing wax, and stir the mass till the coloring ingredients be incorporated with the wax.

**WAX, WHITE**, is formed from the common yellow wax, by bleaching. It is sometimes called, very improperly, virgin wax. The greater the surface is in proportion to the quantity, the sooner and more perfectly this operation is performed. The usual way is to melt the wax in hot water; when melted, they press it through a strainer of tolerably fine linen, and pour it into round and very shallow moulds. When hardened by cooling, it is taken out and exposed to the sun and air, sprinkling it now and then with water, and often turning it: by this means it soon becomes white. The best sort is of a clear and almost transparent whiteness, dry, hard, brittle, and of an agreeable smell, like that of the yellow wax, but much weaker. The common yellow wax is of very great use both in medicine and in many of the arts and manufactures. It has been sometimes given internally in dysenteries and erosions of the intestines; but its great use is in the making ointments and plasters, and the greater part of those of the shops owe their consistence to it. The white wax is also an ingredient in some of the cerates and ointments of the shops; and is used in making candles, and in many of the nicer arts and manufactures where wax is required.

**WAX-WORK** (wax and work), the representation of the faces, &c., of persons living or dead; made by applying plaster of Paris in a kind of paste, and thus forming a mould containing the exact representation of the features. Into this mould melted wax is poured, and thus a kind of mask is formed; which being painted and set with glass eyes, and the figures dressed in their proper habits, they bear such a resemblance that it is difficult to distinguish between the copy and the original.

**WAY, n. s.**  
**WAYFARER,**  
**WAYFARING,**  
**WAY LAY, v. a.**  
**WAYLESS, adj.**  
**WAYMARK, n. s.**  
**WAYWARD, adj.**  
**WAYWARDLY, adv.**  
**WAYWARDNESS, n. s.**

Sax. *weeg*; Belgic *weigh*; Swed. and Goth. *way*; Teut. *wey*. The road in which one travels. 'This word is applied in many relations which seem unlike, but have all the original of road or travel, noting either progression, or the mode of progression, local or intellectual.'—Johnson. A wayfarer is a passenger: wayfaring, travelling: to waylay, to beset on the way: wayless, untracked; pathless: waymark, a mark to guide travellers: wayward is (probably from Sax. *pa*, *woe*) peevish; froward; morose: the adverb and noun substantive corresponding.

But if he shall any ways make them void after he hath heard them, then he shall bear her iniquity.

Numbers xxx. 15.

Set thee up waymarks, make thee high heaps.

Jeremiah, xxxi. 21.

He durst not take open way against them, and as hard it was to take a secret, they being so continually followed by the best, and every way ablest, of that region.

Sidney.

Waywardly proud; and therefore bold, because extremely faulty.

Id.

Matter of mirth

She could devise, and thousand ways invent  
 To feed her foolish humour and vain jolliment.

Spenser.

God hath so many times and ways spoken to men.

Hooker.

How wayward is this foolish love,  
 That, like a testy babe, will scratch the nurse,  
 And presently, all humbled, kiss the rod! Shakespeare.

I am amazed, and lose my way  
 Among the thorns and dangers of this world. Id.

I will waylay thee going home, where if it be thy chance to kill me,—thou killest me like a rogue and a villain. Id.

The best of his time hath been but rash; then must we look from his age to receive not alone the imperfections of long engrafted condition, but the unruly waywardness that inform and choleric years bring. Id.

Being once at liberty, 'twas said, having made my way with some foreign prince, I would turn pirate.

Raleigh.

A physician, unacquainted with your body, may put you in a way for a present cure; but overthroweth your health in some other kind. Bacon.

Note, by the way, that unity of continuance is easier to procure, than unity of species. Id. Nat. History.

When on upon my wayless walk

As my desires me draw,

I, like a madman fell to talk

With every thing I saw. Drayton's Cynthia.

If I had my way,

He had mewed in flames at home, not in the senate;

I had singed his furs by this time. Ben Jonson's Cat.

A child will have as much wit as he has waywardness. Wotton on Education.

Howsoever, many wayfarers make themselves glee, by putting the inhabitants in mind of this privilege; who again, especially the women, forsook not to bairn them. Carew.

The imagination, being naturally tumultuous, interposeth itself without asking leave, casting thoughts in our way, and forcing the understanding to reflect upon them. Duppa.

They to whom all this is revealed, if they will not be directed into a path so planed and smoothed that the wayfaring men, though fools, shall not err therein, must needs acknowledge themselves in the number of the blind that will not enter into God's rest.

Hammond's Fundamentals.

The affairs here began to settle in a prosperous way.

Heylin.

The angelick choir,

On each hand parting, to his speed gave way,

Through all the' empyreal road. Milton's Par. Lost.

To attain

The height and depth of thy eternal ways,

All human thought comes short. Milton.

What conceivable ways are there, whereby we should come to be assured that there is such a being as God?

Tillotson.

The general officers and the publick ministers that fell in my way, were generally subject to the gout.

Temple.

With downward force he took his way,

And rolled his yellow billows to the sea. Dryden.

By noble ways we conquest will prepare;

First offer peace, and, that refused, make war. Id.

To mischief bent,

He seldom does a good with good intent;

Wayward, but wise; by long experience taught

To please both parties, for ill ends he fought. Id.

Like hunted castors, conscious of their store,

Their waylaid wealth to Norway's coasts they bring. Id.

Some make themselves way, and are suggested to

the mind by all the ways of sensation and reflection.

Locke.



We are quite out of the *way*, when we think that things contain within themselves the qualities that appear to us in them. *Id.*

The air could not readily get out of those prisons, but by degrees, as the earth and water above would give *way*. *Burnet.*

By me they offer all that you can ask,  
And point an easy *way* to happiness. *Rouse.*  
His *way* of expressing and applying them, not his invention of them, is what we admire. *Addison.*

Pity poor Cupid, generous maid!  
Who happened, being blind, to stray,  
And on thy bosom lost his *way*. *Prior.*

There is nothing in the words that sounds that *way*, or points particularly at persecution. *Atterbury.*

'Tis no way the interest even of priesthood. *Pope.*  
Men who go out of the *way* to hint free things, must be guilty of absurdity, or rudeness. *Clarissa.*

WAY OF A SHIP is sometimes the same as her rake, or run forward or backward: but this term is most commonly understood of her sailing.

WAYS AND MEANS, in parliamentary language, the minister's plan of new taxes; otherwise called the budget.

WAY, RIGHT OF, in law. This may be grounded on a special permission; as when the owner of the land grants to another a liberty of passing over his grounds, to go to church, to market, or the like: in which case the gift or grant is particular, and confined to the grantee alone; it dies with the person; and, if the grantee leaves the country, he cannot assign over his right to any other; nor can he justify taking another person in his company. A way may be also by prescription; as if all the owners and occupiers of such a farm have immemorially used to cross another's ground; for this immemorial usage supposes an original grant, whereby a right of way thus appurtenant to land may be clearly created. A right of way may also arise by act and operation of law; for, if a man grants me a piece of ground in the middle of his field, he at the same time tacitly and impliedly gives me a way to come at it; and I may cross his land for that purpose without trespass. For, when the law doth give any thing to one, it giveth impliedly whatsoever is necessary for enjoying the same. By the law of the twelve tables at Rome, where a man had the right of way over another's land, and the road was out of repair, he who had the right of way might go over any part of the land he pleased; which was the established rule in public as well as private ways. And the law of England, in both cases, seems to correspond with the Roman.

WAY-BILL (way and bill). A bill or list of passengers or parcels sent by the mail coach, or similar conveyances, from one stage to another.

WAYGIOU, an island in the eastern seas, separated by Dampier's Strait from New Guinea, to the south. Perhaps the south coast has not been surveyed. On the north-west is a good harbour, called Bony, at the mouth of which is the island Bony. The coast is of considerable elevation, very unequal and woody, being covered with an immense forest reaching to the water's edge. The island is throughout mountainous, even at a small distance from the coast. Vegetables are in great variety. The natives are of a very suspicious disposition, probably from being trepanned as slaves; and the chief of a neighbouring island, on board of one of the French vessels, in 1793, beginning to weigh anchor, immediately leapt into the sea, with great outcries to his people.

Vor. XXII.

WAYWODE is properly a title given the governors of the chief places in the dominions of the czar of Muscovy. The palatines or governors of provinces in Poland also bear the quality of waywodes, or waiwodes. The princes of Wallachia and Moldavia have also been called waywodes. Every where else these are called hospodars. Du Cange says that the name waywode is used in Dalmatia, Croatia, and Hungary, for a general of an army: and Leunclavius, in his Pandects of Turkey, tells us it usually signifies captain or commander.

WE, *pron.* In oblique cases *us*. See I. The plural of I: the oblique case of us; but improper.

Retire *we* to our chamber,  
A little water clears us of this deed. *Shakspeare.*

To poor *we*,  
Thine enemy's most capital. *Id.*

Notwithstanding animals had nothing like the use of reason, we find in them all the lower parts of our nature in the greatest strength. *Addison.*

We first endure, then pity, then embrace. *Pope.*

|                                 |  |
|---------------------------------|--|
| WEAK, <i>adj.</i>               | } Sax. <i>præc</i> ; Teut. <i>weic</i> ;<br>Swed. <i>wek</i> ; Goth. <i>wek</i> ;<br>Belg. <i>week</i> . Feeble; in-<br>firm; soft; pliant; un-<br>defended: to weaken is;<br>to enfeeble; debilitate; |
| WEAK'EN, <i>v. a.</i>           |  |
| WEAK'LING, <i>n. s.</i>         |  |
| WEAK'LY, <i>adj. &amp; adv.</i> |  |
| WEAK'NESS, <i>n. s.</i>         |  |

WEAK'SIDE. }  
deprive of strength: a weakling, a feeble creature: weakly is used as an adjective for not healthy; not strong: the adverb and noun substantive following correspond with weak: the weak side is the foible; deficiency of any one.

*we* is weary and weak handed. 2 Samuel xvii. 2.

Their hands shall be *weakened* from the work, that it be not done. Nehemiah vi. 9.

As the case stands with this present age, full of tongue and *weak* of brain, we yield to the stream thereof. *Hooker.*

The first which *weakened* them was their security. *Id.*

A voice not soft, *weak*, piping, and womanish; but audible, strong, and manlike. *Ascham.*

Troy in our *weakness* lives, not in her strength. *Shakspeare.*

Thou art no Atlas for so great a weight;  
And, *weaking*, Warwick takes his gift again;  
And Henry is my king, Warwick his subject. *Id.*

Being old and *weakly*, twenty years in prison, it was ten to one that ever I should have returned. *Raleigh.*

The motion of gravity worketh *weakly*, both far from the earth, and also within the earth. *Bacon.*

If you will work on any man, you must know his nature, and so lead him; or his *weaknesses* and disadvantages, and so awe him. *Id.*

This murdered prince, though *weak* he was,  
He was not ill, nor yet so *weak*, but that  
He shewed much martial valour in his place. *Daniel.*

This high gift of strength committed to me,  
Under the seal of silence, could not keep,  
But *weakly* to a woman must reveal it. *Milton.*

She first his *weak* indulgence will accuse. *Id.*

If *weakness* may excuse,  
What murderer, what traitor, parricide,  
Incestuous, sacrilegious, but may plead it?  
All wickedness is *weakness*. *Id.*

She seems to be conscious of the *weakness* of those testimonies. *Tillotson.*

Trade has increased their shipping, which they found to be their *weakside* in their last attempts. *Temple.*

Wert thou not *weak* with hunger, mad with love,  
My hand should force thee. *Dryden.*

Was plighted faith so *weakly* sealed above,  
That for one error I must lose your love? *Id.*

Æsoo begged his companions not to overcharge him ;  
 bey found him a *weakling*, and bade him please himself.

*L'Estrange.*

This dog would have fought for his master in any  
 other case ; but the love of mutton was his *weakside*.

*Id.*

Every violence offered to the body *weakens* and im-  
 pairs it, and renders it less durable.

*Ray.*

The *weak*, by thinking themselves strong, are induced  
 to venture and proclaim war against that which ruins  
 them ; and the strong, by conceiting themselves *weak*,  
 are thereby rendered unactive and useless.

*South.*

Many find a pleasure in contradicting the common  
 reports of fame, and in spreading abroad the *weaknesses*  
 of an exalted character.

*Addison.*

Let us not *weaken* still the *weaker* side  
 By our divisions.

*Id.*

New graces yearly like thy works display  
 Soft without *weakness*, without glaring gay.

*Pope.*

To think every thing disputable is a proof of a *weak*  
 mind, and captious temper.

*Beattie.*

Solemn impressions that seem to *weaken* the mind,  
 may, by proper reflection, be made to strengthen it.

*Clarissa.*

WEAL, *n. s.* Sax. pelan; Dan. *wel*. Happi-  
 ness ; prosperity.

Blood hath been shed

Ere human statute purged the general *weal*.

*Shaksp.*

As we love the *weale* of our souls and bodies, let us  
 so behave ourselves as we may be at peace with God.

*Bacon.*

Ireland ought to be considered not only in its own  
 interest, but likewise in relation to England, upon  
 whose *weal* in the main that of this kingdom depends.

*Temple.*

How shall the muse from such a monarch steal  
 An hour, and not defraud the public *weal* ?

*Pope.*

WEAL, *n. s.* Sax. palan. The mark of a stripe.  
 Like warts or *weals* it hangs upon her skin.

*Danne.*

WEALTH, *n. s.* } Sax. pale8, rich. From  
 WEALTH'ILY, *adv.* } *weal*. Prosperity ; external  
 WEALTH'Y, *adj.* } happiness ; riches : the ad-  
 verb and adjective corresponding.

In all time of our tribulation, in all time of our  
*wealth*, in the hour of death, and in the day of judgment,  
 good Lord deliver us.

*Common Prayer.*

In desert hast thine habitation,  
 And these rich heaps of *wealth* doth hide apart  
 From the world's eye and from her right usance.

*Faerie Queene.*

I come to wive it *wealthily* in Padua,  
 If *wealthily*, then happily in Padua.

*Shakspere.*

I should forge  
 Quarrels unjust against the good and loyal,  
 Destroying them for *wealth*.

*Id.*

I wish thee, Vin, above all *wealth*,  
 Both bodily and ghostly health :  
 Not too much wit or *wealth* come to thee ;  
 For much of either may undo thee.

*Corbet.*

Each day new *wealth* without their care provides,  
 They lie asleep with prizes in their nets.

*Dryden.*

My speculations, when sold single, like cherries upon  
 the stick, are delights for the rich and *wealthy*.

*Aldis.*

Not Neptune's self from all his floods receives

A *wealthier* tribute than to thine he gives.

*Pope.*

WEAN, *v. a.* Sax. penan. To put from the  
 breast ; to ab lactate : hence withdraw from any  
 strong desire or habit.

I have behaved as a child that is *weaned* of his mo-  
 ther.

*Psalms.*

Here the place whose pleasant sights  
 From other shades have *weaned* my wandering mind ;  
 Tell me what wants me here.

*Spenser.*

I the rather *wean* me from despair,

For love of Edward's offspring in my womb.

*Shaksp.*

Seriously reflect on the happy state he shall most

certainly arrive to, if he but *wean* himself from these  
 worldly impediments here that clog his soul's flight.

*Digby.*

There the coarse cake, and homely husks of beans,  
 From pamp'ring riot the young stomach *weans*.

*Dryd.*

A fortnight before you *wean* calves from milk, let  
 water be mixed with it.

*Mortimer.*

The troubles of age were intended by the Author of  
 our being to *wean* us gradually from our fondness of  
 life, the nearer we approach to the end of it.

*Swift.*

WEAN'EL, *n. s.* } From *wean*. An anima

WEAN'LING. } newly weaned.

Though when as Lowder was far away,  
 This wolfish sheep would catch his prey ;

A lamb, or a kid, or a *weanet* wast,  
 With that to the wood would he speed haste.

*Spenser.*

To gorge the flesh of lambs and *weanling* kids,  
 On hills where flocks are fed, flies toward the springs  
 Of Ganges or Hydaspes.

*Milton.*

WEAPON, *n. s.* } Sax. peapon. Instru-

WEAPONED, *adj.* } ment of offence : armed

WEAPONLESS, } with such an instrument :

WEAPONSAVE, *n. s.* } destitute of such an in-  
 strument ; unarmed : weaponsave is a save which,  
 applied to the weapon, was supposed to cure the  
 wound it made.

In what sort, so ill *weaponed*, could you atchieve this  
 enterprise ?

*Sidney.*

The giant

Down let fall his arm, and soft withdrew  
 His *weapon* huge, that heaved was on high,

For to have slain the man that on the ground did lie.

*Spenser.*

Take this *weapon*

Which I have here recovered from the Moor.

*Shaksp.*

His foes, who came to bring him death,  
 Bring him a *weapon* that before had none.

*Daniel.*

Sampson

Ran on embattled armies, clad in iron,  
 And *weaponless* himself.

*Milton.*

That the sympathetic powder and the *weapon-salve*  
 constantly perform what is promised, I leave others to  
 believe.

*Boyle.*

With his full force he whirled it first around ;  
 Imperial Juno turned the course before,  
 And fixed the wandering *weapon* in the door.

*Dryden.*

WEAR, *v. a., v. n., &* } *Pret.* wore ; *part.*

WEARER, *n. s.* [ *n. s.* ] } worn. Sax. *pepan*. To

WEARING. } waste with use, time, or

instruments ; to impair by gradual diminution :  
 hence to use ; carry appendant to the body ; ex-  
 hibit : to be wasted ; pass away by degrees : the  
 act of wearing or thing worn : a wearer is, that  
 which wastes or diminishes ; one who uses or car-  
 ries any thing appended to him : wearing is used  
 by Shakspere for clothes.

Thou wilt surely *wear* away.

*Exodus xviii. 18.*

Waters wear the stones.

*Job xiv. 19.*

Their adorning let it not be that outward adorning of  
 plaiting the hair, and of *wearing* of gold.

*1 Peter iii. 3.*

It was his bidding ;

Give me my nightly *wearing*, and adieu.

*Shakspere.*

Were I the *wearer* of Antonio's beard,

I would not shave 't to day.

*Id.*

What masks, what dances,

To *wear* away this long age of three hours !

*Id.*

O wicked world ! one that is well nigh worn to pieces  
 with age, to show himself a young gallant.

*Id.*

Proteogenes could lay his colors so artificially, that  
 one being worn off, a fresh should succeed, to the num-  
 ber of five.

*Peacham.*

They have had all advantages to the making of them  
 wise unto salvation, yet suffer their manhood to *wear*  
 out and obliterate all those rudiments of their youth.

*Decay of Piety.*



Eased the putting off

These troublesome disguises which we wear. *Milton.*  
Thus wore out night. *Id.*

It was the enchantment of her riches  
That made me apply to your crouy riches;  
That in return would pay the' expence,  
The wear and tear of conscience. *Hudibras.*

Armour bears off insults, and preserves the wearer in  
the day of battle; but, the danger once repelled, it is  
laid aside, as being too rough for civil conversation.  
*Dryden.*

This is unconscionable dealing, to be made a slave,  
and not know whose livery I wear. *Id. Spanish Fryar.*

In those who have lost their sight when young, in  
whom the ideas of colours having been but slightly  
taken notice of, and ceasing to be repeated, do quite  
wear out. *Locke.*

Trials wear us into a liking of what possibly, in the  
first essay, displeased us. *Id.*

An hasty word, or an indiscreet action, does not dis-  
solve the bond, but that friendship may be still sound  
in heart; and so outgrow and wear off these little dis-  
tempers. *South.*

We ought to leave room for the humour of the artist  
or weaver. *Addison on Italy.*

The difficulty will every day grow less and wear off,  
and obedience become easy and familiar. *Rogers.*

On her white breast a sparkling cross she wore. *Pope.*

Take away this measure from our dress and habits,  
and all is turned into such paint and glitter, and ridicu-  
lous ornaments, as are a real shame to the wearer.  
*Law.*

WEAR', *n. s.* } Saxon *þær*. A quagmire:  
WEAR'ISH, *adj.* } boggy; watery.

They will force themselves through flood-gates, or  
over wears, hedges, or stops in the water. *Walton.*

A garment over rich and wide for many of their  
*wearish* and ill-disposed bodies. *Carew.*

WEAR, or WEEB, is a great dam in a river, fitted  
for the taking of fish, or for conveying the stream  
to a mill. New wears are not to be made, or others  
altered, to the nuisance of the public, under a cer-  
tain penalty.

WEARY, *adj. & v. a.* } Saxon *þearig*; Belg.  
WEAR'INESS, *n. s.* } *waeren*. Subdued by  
WEAR'ISOME, *adj.* } fatigue; tired; worn;  
WEAR'ISOMELY, *adv.* } worn out: to fatigue;  
WEAR'ISOMENESS, *n. s.* } tire; harass: wearisome  
is tedious; tiresome; causing weariness: the other  
derivatives correspond.

Let us not be weary in well doing. *Gal. vi. 9.*

The people labour in the very fire, and weary them-  
selves for very vanity. *Hab. ii. 13.*

Fair Phœbus 'gan decline, in haste,  
His weary waggon to the western vale. *Spenser.*

The soul prefereth rest in ignorance before wearisome  
labour to know. *Hooker.*

A wit, quick without lightness, sharp without brittle-  
ness, desirous of good things without newfangledness,  
diligent in painful things without wearisomeness.  
*Ascham.*

An old man, broken with the storms of state,  
Is come to lay his weary bones among ye:  
Give him a little earth for charity. *Shakespeare.*

As of Nimrod, so are the opinions of writers different  
touching Assur, and the beginning of that great state  
of Assyria; a controversy wearisomely disputed, without  
any direct proof or certainty. *Raleigh.*

Troops came to the army the day before, harassed  
with a long and wearisome march. *Bacon.*

The king was as weary of Scotland as he had been to  
impatience to go thither, finding all things proposed to  
him without consideration of his honour or interest.  
*Clarendon.*

Satiety from all things else doth come,  
Then life must to itself grow wearisome. *Denham.*  
Dewy sleep oppressed them wearied. *Milton.*

This must be our task

In heaven, this our delight; how wearisome  
Eternity so spent, in worship paid

To whom we hate! *Id. Paradise Lost.*  
Water-fowls supply the weariness of a long flight by  
taking water. *Hale.*

Sea would be pools without the brushing air,  
To curl the waves; and sure some little care  
Should weary nature so, to make her want repose.  
*Dryden.*

Heaven, when the creature lies prostrate in the  
weakness of sleep and weariness, spreads the covering of  
night and darkness to conceal it. *South's Sermons.*

Should the government be wearied out of its present  
patience, what is to be expected by such turbulent men?  
*Addison.*

WEA'SEL, *n. s.* Sax. *perel*; Belg. *wesel*. A  
small animal that kills mice.

Ready in gybes, quick-answered, saucy, and  
As quarrelsome as the weasel. *Shakespeare. Cymbeline.*

A weasel once made shift to slink  
In at a corn-loft through a chink. *Pope.*

WEASEL, in zoology. See MUSTELA, and VI-  
VERRA.

WEA'SAND, *n. s.* Sax. *paren*, *perand*. The  
windpipe; the passage through which the breath is  
drawn and emitted; the larynx.

Marry Diggon, what should him affray,  
To take his own where ever it lay;  
For had his weasand been a little wider,  
He would have devoured both hidder and shidder.  
*Spenser.*

Cut his weasand with thy knife. *Shakespeare.*  
And the soul issues through the weasand's wound.  
*Dryden.*

WEATHER, *n. s. & v. a.* Sax. *peðer*; Isl.

WEATHERBEATEN, *adj.* *weðher*. State of the  
air, respecting either

WEATHERCOCK, *n. s.* cold or heat, wet or  
WEATHERDRIVEN, *adj.* dryness; change of  
WEATHERGAGE, *n. s.* that state; tempest;

WEATHERGLASS, storm: to weather is  
WEATHERSPY, expose to the air and

WEATHERWISER. its changes; to pass with difficulty; gain; endure:

weatherbeaten, harmed or worn by the weather:

weathercock, weathergage, and weatherglass, in-  
struments for ascertaining the state or changes of

the wind or weather: weatherspy and weatherwiser,  
prognosticators of the weather, male, female, or

neuter; weatherdriven, forced by storms or weather.

Mustard-seed gather for being too ripe,  
And weather it wel, yer ye give it a stripe. *Tusser.*

They perceived an aged man and a young, both  
poorly arrayed, extremely weatherbeaten; the old man  
blind, the young man leading him. *Sidney.*

He perched on some branch thereby,  
To weather him, and his moist wings to dry. *Spenser.*

She enjoys sure peace for evermore,  
As weatherbeaten ship arrived on happy shore. *Id.*

Who's there, besides foul weather?  
—One minded like the weather, most unquietly. *Shaks.*

Where had you this pretty weathercock?—I cannot tell  
what his name is my husband had him of. *Id.*

Thrice from the banks of Wye,  
And sandy-bottomed Severn, have I sent  
Him bootless home, and weatherbeaten back. *Id.*

And sooner may a galling weatherspy,  
By drawing forth heaven's scheme, tell certainly

What fashioned hats, or ruffs, or suits, next year  
Our giddy-headed antick youth will wear. *Donne.*

I hope, when you know the worst, you will at once  
leap into the river, and swim through handsomely, and

not *weatherbeaten* with the divers blasts of irresolution,  
stand shivering upon the brink. *Suckling.*

Again the northern winds may sing and plow,  
And fear no haven but from the *weather* now. *Cowley.*

Could they *weather* and stand the shock of an eternal  
duration, and yet be at any time subject to a dissolution? *Hale.*

To vere and tack, and steer a cause  
Against the *weathergale* of laws. *Hudibras.*

He break my promise and absolve my vow!  
The word which I have given shall stand like fate:  
Not like the king's, that *weathercock* of state. *Dryden.*

What gusts of *weather* from that gathering cloud  
My thoughts presage! *Id.*

As in some *weatherglass* my love I hold,  
Which falls or rises with the heat or cold,  
I will be constant yet. *Id.*

He *weathered* fell Charybdis; but ere long  
The skies were darkened, and the tempests strong. *Garth.*

We have been tugging a great while against the  
stream, and have almost *weathered* our point; a stretch  
or two more will do the work. *Addison.*

The old *weatherbeaten* soldier carries in his hand the  
Roman eagle. *Id.*

Most vegetables expand their flowers and down in  
warm sun-shiny *weather*, and again close them toward  
the evening, or in rain, as in the flowers of pimpernel,  
the opening and shutting of which are the countryman's  
*weatherwiser*. *Derham.*

WEATHER. See METEOROLOGY.

WEATHER, in sea-language, is applied by mariners  
to every thing lying to windward of a particular  
situation; thus, a ship is said to have the  
*weather-gage* of another when she is farther to  
windward. Thus also, when a ship under sail  
presents either of her sides to the wind, it is then  
called the *weather-side*, or *weather-board*; and all  
the rigging and furniture situated thereon are distinguished  
by the same epithet, as the *weather-ropes*, &c.

WEAVE, *v. a. & v. n.* } *Pret.* wove, weaved;

WEAVER, *n. s.* } *participle pass.* woven,  
weaved. Sax. *wefan*; Belg. *weven*; Teut. *weben*.  
To form by texture, or by inserting one part of the  
materials within another; insert; unite; to work  
with a loom: one who weaves.

The women *wove* hangings for the grove.

My days are swifter than a *weaver's* shuttle. *2 Kings xxiii. 7.*

*Job vii. 6.*

Here in her hairs  
The painter plays the spider, and hath *woven*  
A golden mesh to intrap the hearts of men  
Faster than gnats in cobwebs. *Shakspeare.*

Upon these taxations,  
The clothiers all, not able to maintain  
The many to them 'longing, have put off  
The spinsters, carders, fullers, *weavers*. *Id.*

There our secret thoughts unseen  
Like nets be *woven* and intertwined,  
Wherewith we catch each other's mind. *Carew.*

White seemed her robes, yet *woven* so they were,  
As snow and gold together had been wrought. *Dryden.*

When religion was *woven* into the civil government,  
and flourished under the protection of the emperors,  
men's thoughts and discourses were full of secular affairs. *Addison.*

Dan Pope, for thy misfortune grieved,  
With kind concern and skill has *woven*  
A silken web, and ne'er shall fade  
Its colours. *Prior.*

WEAVING. The various processes for weaving  
with the common loom have been fully discussed in  
those departments of our work dedicated to the  
manufacture of CLOTH and COTTON; and it will  
now only be necessary to furnish our readers with  
a description of the improved power loom as manu-  
factured by Mr. Roberts of Manchester.

The patentee's improvements are divided into  
several heads, the first of which consists in an im-  
proved manner of constructing and applying the  
tappets which are employed for raising and de-  
pressing the different shafts or heddles in those  
looms where more than two shafts or heddles are  
used. This part of the improvement is applicable  
both to hand looms and those which are worked by  
power. Plate I of WEAVING contains several views  
of a power loom, having six shafts or heddles,  
adapted to weave twilled cloths or fustians, and  
such other fabrics as have the threads crossed in  
weaving, in that peculiar manner called twill.  
Fig. 1 is a front view of the loom (the cloth-roller  
and breast-beam being removed, in order to exhibit  
the parts behind). Fig. 2 represents the left hand  
end of the loom; fig. 3 the right hand end; and  
fig. 4 is a horizontal view, that is, looking down  
upon the top.

The framing is of cast iron, bolted or screwed  
together, so as to render the whole firm; *a* is the  
yarn roller, upon which the warps are wound, and  
this is made to turn with considerable friction, by  
means of cords passing over pulleys, with weights  
suspended in order to keep the warp tight. The  
warp is drawn from this roller over a small roller  
*b*, and thence is conducted to the lease-rod *c*, and  
through the loops of the several heddles *d*. These  
heddles are made to move up and down (in the  
manner hereafter to be described) for the purpose  
of separating the warp into two sheds, between  
which the shuttle is to pass, for the purpose of  
bringing the weft threads between those of the warp,  
and thereby weaving the fabric; *e* is the lay in  
which the reed is placed, consisting of a series of  
fine wires; between these wires the warp passes,  
and by it the threads are separated. This lay is  
supported by two arms *f, f*, and vibrates upon a  
shaft with pivots below.

The lay is moved backward to enable the shuttle  
to pass along its race between the divided parts of  
the warp, and it is brought forward to beat up the  
weft after the shuttle has passed; *g* is the place of  
the breast beam, over which the cloth or other  
fabric passes when it is woven, and descends from  
the breast-beam to the roller *h*, where it is wound  
up. On the end of the axle of this roller, *h*, there  
is a toothed wheel *i* (seen in fig. 3) which takes  
into a pinion upon the axle of the ratchet wheel *k*.  
A click or pall at the end of the cross-lever falls  
into this ratchet, and the lower end of the cross-  
lever being connected to the leg of the lay, moves  
with it, turning upon a pivot in the centre of the  
cross, and, every time that the lay goes backward,  
the click pulls the ratchet wheel one tooth, thereby  
causing the pinion to move the roller *i* round with  
a very slow motion, by which the cloth is progres-  
sively drawn on to the roller as it accumulates in  
the loom.

The machinery is put in motion by means of the  
band *m*, seen in fig. 2, which proceeds from the  
steam-engine, or any other first mover, and passes  
over the rigger *n*, which is fixed to a small fly-  
wheel upon the end of the main shaft of the loom.



Fig. 1.

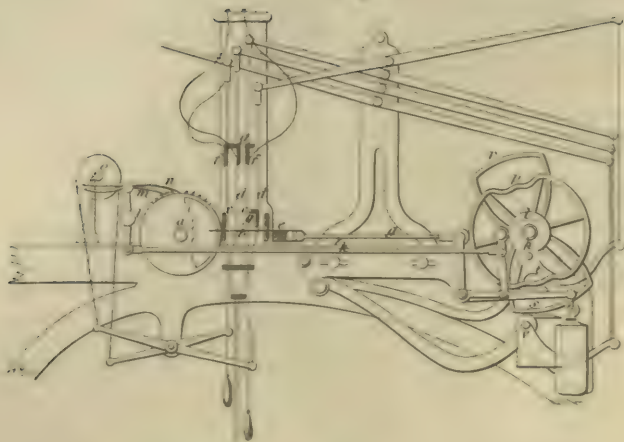


Fig. 2.

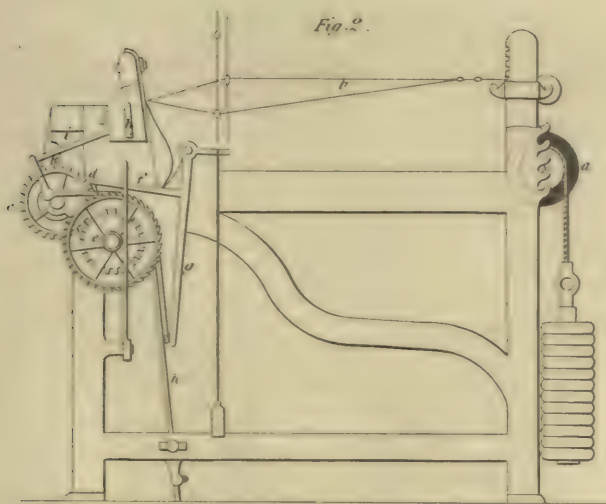
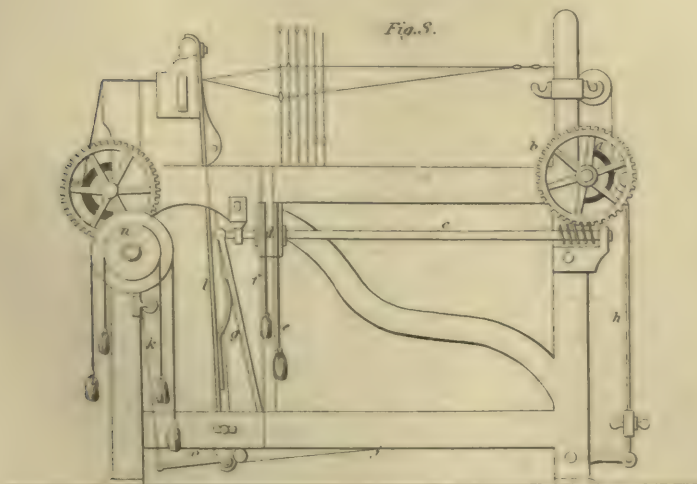
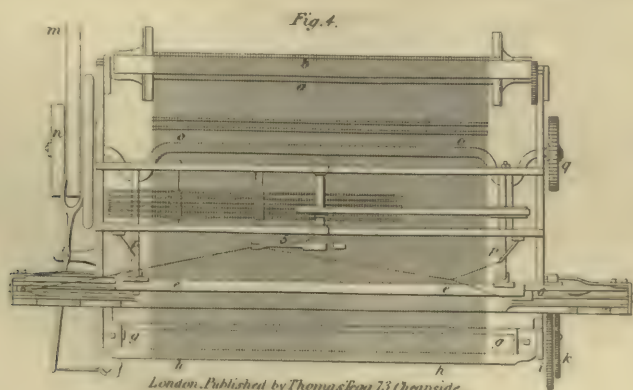
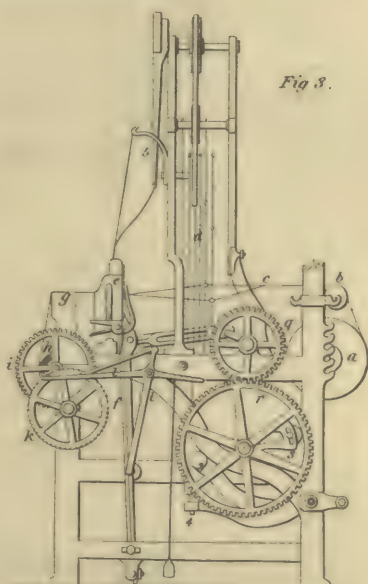
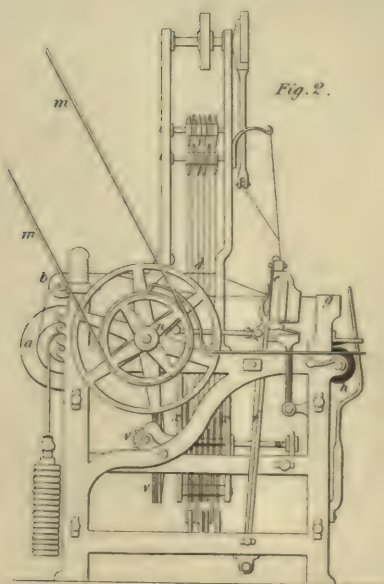
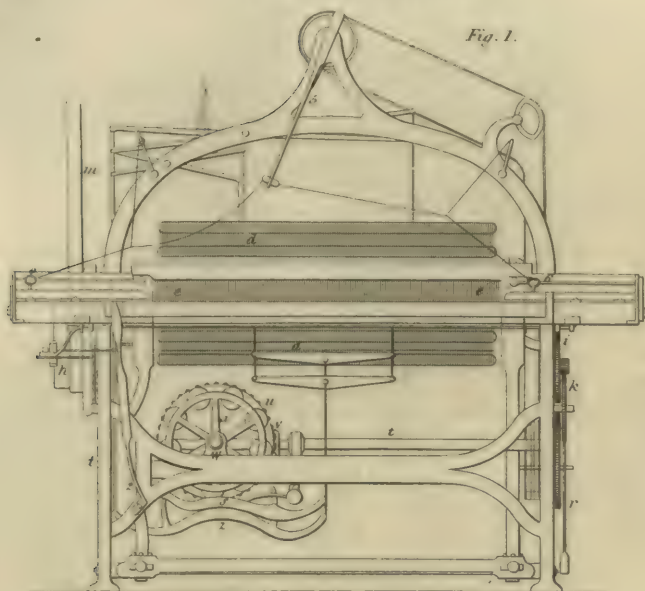


Fig. 3.









London. Published by Thomas Egoy, 73, Cheapside.

J. Shury sculp.





shown at *o o*, fig. 4. This shaft *o* has two cranks upon it, which, by means of the connecting links *v, p*, gives motion to the lay. The other end of this shaft has a small toothed-wheel *q*, seen at fig. 3, which takes into another toothed-wheel *r*, of twice the diameter, which last is fixed upon the end of an horizontal axle *t t*, extending the whole width of the loom, as shown at fig. 1. This axle has a small bevel pinion *v* fixed upon it, which actuates a bevel-wheel *u* upon the cross axle *w*. The tappet wheel *x* is also fixed upon this axle, and the gear is so regulated that the tappet wheel makes one revolution to every nine revolutions of the crank shaft.

The tappet wheel *x* is formed by two wheels which carry nine small axles, on each of these axles are six small friction rollers, making in the whole fifty-four friction rollers. These rollers are intended to act upon twelve curved levers *y, z*, fig. 1. The curved levers move upon fixed centres supported in small bearings; six of these curved levers are supported at 1, and the other six at 2, crossing each other, as shown in fig. 1, the extremities of the levers alternately rising and falling. The ends of these levers, towards the middle of the loom, are attached by cords to the lower rails of the heddles, and their other extremities by cords to the top levers, from which are suspended the upper rails of the heddles.

The operation of the tappet wheel upon the heddles is this:—Having been actuated by means of the shaft and gear, as before described, the wheel in its revolution causes the friction rollers to strike alternately upon one or other of the levers *y* or *z*, and force them down, by which means the respective heddles are depressed or raised at certain parts of the operation, and these drawing the sheds of the warp up or down to permit the shuttle to pass, as before described, dispose the warp according to that particular arrangement which is calculated to produce a twilled fabric. In order to vary the twill, the friction rollers are capable of being shifted, and, by so disposing the collets between the rollers, certain of them may be situated so as not to act upon any particular one or more of the curved levers.

The operation of pecking, or throwing the shuttle, is effected by means of a double arm or tappet 3 on the axis of the shaft *t t*, which acts upon the levers 4, seen in fig. 3, whence rods and bands pass to a vibrating lever 5, upon the axle of a wheel at the top of the loom in front, as seen in fig. 1. Thus the revolution of the tappets 3, causing the alteration of the levers 4, produce the vibratory action of the lever 5; and cords being passed from this lever to the peckers 6, 6, cause the peckers alternately to strike the shuttle out of its box, and send it across the lay *e*.

There is a provision in case the shuttle should by any accident stop in the race to prevent the lay from coming forward, which would otherwise break the reed; this is by means of small springs in the shuttle boxes, which, when the shuttle has not reached its destination, stand out and catch against small projections, and by that means stop the advance of the lay. Whenever this happens, the main strap *m* is, by the sudden action of a spring, pushed off the rigger of the main shaft, and the machinery is altogether stopped until the accidental interruption is removed.

The second improvement applies to that descrip-

tion of loom employed for the weaving of figured goods, and consists in certain machinery to be placed above the loom for the purpose of effecting the raising and depressing of such parts of the warp as are usually operated upon by the draw boy. Very considerable difficulty and labor are attendant upon the old mode of setting in any particular pattern, figure, or design to be woven, but this labor and consequent expense are, in a great measure, overcome by the plan proposed under the present patent.

A section of the improved piece of mechanism is shown in plate II., fig. 1, which is to be placed immediately over the heddles or leases of the loom; *a* is a cylinder mounted upon an axle, and supported upon bearings in the frame. The periphery of this cylinder is perforated with a vast number of holes at equal distances apart, so as to render the appearance of its entire surface like a colander. Previous to placing the cylinder in the loom, it is to be covered with stout drawing paper, and, when set in such a situation that the light may shine through the perforations, a small punch is to be employed for the purpose of pricking through the paper, and through the cylinder, certain holes corresponding to the required pattern.

The cylinder thus pierced is then placed in the frame as shown at *a*, so as to revolve upon its pivots, resting in bearings capable of accurate adjustment. A series of needles *b* are ranged in a horizontal position, so that their end may come in contact with the periphery of the cylinder.—Cords *c c* and *d d*, fastened to the frame above, pass through eyes in the needles, and proceed down to the heddles or leases below. These needles work in guide pieces, and are supported by a straight bar *e*, which passes through their bent parts behind, and by that means they are enabled to slide accurately in a line with the axis of the cylinder. When the ends of the needles come against the blank or unpierced parts of the paper upon the periphery of the cylinder, they are pressed back, and the cords are drawn out of the perpendicular, as *d, d*, by which means the needles acquire a tendency to advance when any of the apertures come opposite them, so as to permit their ends to slide forward. When any of the needles have slid forward through any of the apertures of the cylinder, the cords attached to those needles become straight as *c, c*. There are four bars *f, g, f, g*, from each of which a row of forks, like a wide toothed comb, extend. Between the forks or teeth of these bars the cords pass; and as the bars are drawn up or let down, by the action of the top levers, a knot in each of the cords causes them and the heddles to which they are attached below to be drawn up or let down also: it will hence be seen that those needles which have been allowed to advance by passing into the apertures of the cylinder, draw the bent cords *d, d*, into the straight position of *c c*, and by that means those cords are withdrawn from the teeth of the forked bars *g, g*, and are placed between the teeth of *f, f*, which, in rising, take hold of the knots and lift the heddles attached to the cords so operated upon; while those needles which are forced back by the blanks of the cylinder keep their cords bent in the position of *d, d*, and the heddles connected to these cords are lifted by the rising of the bars *g, g*; thus the different parts of the warp required to be raised, to produce any particular pattern or damask figure, are so raised



by the shifting of the cords connected to the respective heddles from the fork bars *f* to *g*, or from *g* to *f*, as may be required, which is effected by the sliding of the needles as above described.

The manner in which the different parts of this piece of mechanism are put in action is as follows:—*h* is a main shaft turned by a connexion with the lay of the loom, so as to move half round every time that the shuttle has been passed across the warp. Upon this shaft there are several cams or tappets operating upon levers; *i* is one of these cams, which, as it revolves, strikes against the friction roller of a bent lever *j*, and drives the rod *k* forward. At the reverse end of this rod *k* there is a vibrating lever *l*, connected to which a pall *m* is attached, and this, taking into the ratchet teeth of the cylinder *a*, causes the cylinder to advance one tooth every time that the cam *i* strikes the lever *j*, and rod *k*. There is a hook *n*, by the side of the pall *m*, which is connected also to the action of the lever *l* and rod *k*, for the purpose of giving the cylinder a retrograde motion; which is requisite when the figure or pattern is designed to be worked backwards and forwards, as in what is called a point pattern; the means of putting either the pall or the hook out of action is a cam upon the shaft *o*.

In order to move the cylinder forward one tooth of a revolution, it is necessary to withdraw those needles that have passed into the apertures; this is done by the cam or tappet wheel *p* (also upon the main shaft) permitting the rod *q* to recede, and with it the guide bar *e*, which draws the whole of the needles *b* a short distance back every time that the shuttle has passed across the loom. The lifting of the fork bars is produced by two tappets *r* and *s*, likewise upon the main shaft, which, coming in contact with the friction rollers of the bent levers *t*, *u*, by the cords at their extremities, alternately pull down the longer arms of the top levers, and thereby cause the shorter arms of the same levers to lift the forked bars and the cords *c* or *d* as before described.

The third improvement applicable to looms consists in a new mode of taking up or winding the cloth or fabric upon the beam, or cloth roller as it accumulates in the loom; this part of the invention is capable of adaptation to both power looms, and those worked by hand. It has been found extremely difficult in hand looms to produce an even cloth, owing to the unequal force by which the lay has beaten up the weft or shoot. This contrivance is shown at fig. 2, which exhibits an end view of a power loom, such parts only being shown as are necessary for the illustration of this contrivance.—*a* is the roller upon which the yarn is wound; this roller turns with considerable friction, owing to the weighted cord coiled round it, which distends the warp threads *b*. The roller upon which the cloth is wound is marked *c*, and has upon its axis a toothed wheel *d*, taking into a pinion upon the axle of the ratchet wheel *e*. This ratchet wheel is moved round by a hooked pall *f*, which is connected to the lever *g*; and this lever, being jointed to the leg of the lay *h*, causes the hook to pull the ratchet wheel one tooth at every vibration of the lay.

If the weft or shoot carried by the shuttle be of uniform substance, the cloth or other fabric woven by these means will be of an even texture; but, if some parts of the weft be thinner than other parts, then the lay will come forward a small distance and permit the tail rod *i* to strike against the short

lever *k*, which will cause the hook *f* to be lifted out of the teeth of the ratchet, and the beating up of the cloth will proceed without causing the roller *e* to draw it off until a second weft thread has been introduced, which by the increased thickness prevents the advance of the lay as before, and now allows the hook to take hold of the ratchet, and draw it one tooth forward. When this contrivance is adapted to a power loom, the lay must be worked by an arm which has a spring, in order to permit the lay to advance according to the thickness of the weft.

The fourth improvement applies to the working of the yarn roller and the cloth roller together, by means of certain machinery as will be explained. Fig. 3 shows the end of a loom with such parts as are necessary to explain this improvement; *a* is the yarn roller with a toothed wheel *b* upon its axis; *c* is a horizontal shaft having an endless screw upon it, taking into the toothed wheel; *d* is a friction pulley, over which two weighted cords pass, the one *e* fastened to the frame, the other *f* attached to an arm or lever *g*, extending from the leg of the lay. When the lay goes back, previous to throwing the shuttle, the lever *g* draws down the cord *f*, in which act the pulley *d* and its shaft *c* is turned a short distance round, and the endless screw upon this shaft taking into the toothed wheel *b* causes that wheel and the roller *a* to turn sufficiently to give out a portion of the warp. When the lay returns, for the purpose of beating up the weft, the lever *g* slackens the cord *f*, which now slides and is drawn tight by the weight at its extremity, the pulley *d* being prevented from returning by the friction of the weighted cord *e*.

In order to regulate the delivery of the warp, according to the larger or smaller diameter of the warp roller *a*, a lever *h* is placed at the back of the loom, carrying the friction roller *i*, which is pressed against the periphery of the warp roller by the tension of a cord *j* fastened to the lever *h*, and passing thence over a pulley to the arm or lever *g* before mentioned. This lever is pressed by a spring *l* in the side of the lay, and as the diameter of the warp roller diminishes; the lever *h* advances and relaxes the cord *j*, by which the spring *l* is enabled to force the arm *g* farther out, and hence the cord *f* is drawn further down in the receding of the lay above described, which draws the pulley also, and thereby causes the toothed wheel and the warp roller to advance more rapidly than would be required if the roller was full.

In opening the sheds of warp for passing the shuttle, the warp roller is not permitted to give way as in other looms: but the cloth roller is made to yield by the following means:—*m* is the cloth roller, having a toothed wheel upon its axis, taking into a pinion which is fixed upon the axis of the pulley *n*; this pulley has two grooves of different diameters, round which pass cords with balance weights. As the lay vibrates, its tail lever *o* draws the cord up and down, which by friction causes the pulley to move sufficiently to afford the required relaxation of the cloth.

The fifth improvement consists in disposing the warps and shuttles in several ranges, one above the other, which particularly applies to ribbon looms; in this improvement the shuttles are placed in the lay in several rows, and consequently several portions of reeds are adapted to correspond to the several rows of warp. The sixth improvement is in



the manner of working these shuttles for the weaving of narrow goods as ribbons; by which arrangement, shuttles with different colors or shades of color may be worked at the same time. The lay is provided with an iron sliding frame, having beaters extending up and down, so as to reach the several shuttles in the upper and lower rows; or, if more than two rows of shuttles be arranged, then the sliding beater is formed as a ladder.

WEB, *n. s.* } Sax. *pebba*. Texture; any  
WEBBED, *adj.* } thing woven; a film: webbed  
WEBFOOTED, } is joined by a film: webfooted,  
WEBSTER, *n. s.* } having films between the toes:  
webster, a weaver (obsolete).

Penelope, for her Ulysses' sake,

Devised a *web* her woovers to deceive:

In which the work that she all day did make,

The same at night she did again unweave. *Spenser.*

This is the foul flibertigibbet; he gives the *web* and the pin, squints the eye, and makes the hairlip.

*Shakspeare.*

Spiders touched, seek their *web's* inmost part.

*Davies.*

After local names, the most in number have been derived from occupations: as, Taylor, *Webster*, Wheeler.

*Camden.*

The sword, whereof the *web* was steel;

Pommel, rich stone; hilt, gold approved by touch.

*Fairfax.*

The fates, when they this happy *web* have spun,

Shall bless the sacred clue, and bid it smoothly run.

*Dryden.*

*Webfooted* fowls do not live constantly upon the land, nor fear to enter the water.

*Ray.*

Such as are whole-footed, or whose toes are *webbed* together, their legs are generally short, the most convenient size for swimming.

*Derham.*

WEBB (Philip Carteret), esq., an eminent English antiquary and lawyer, born in 1700. In 1751 he was employed to procure the charter of incorporation for the Society of Antiquaries, London. In 1754 he was elected M. P. for Haslemere; and re-elected in 1761. He was appointed solicitor to the treasury; in which office he continued till June 1765. In 1747 he published *Observations on the Proceedings in the Admiralty Courts*, 8vo. In 1760 he presented the famous Heracleian Table to the king of Spain, for which he received a diamond ring worth £300. In April, 1763, he was employed in defending Mr. Wilkes in the celebrated prosecution against him. On that occasion he published *A Collection of Records about General Warrants*, and other political tracts. He also published, 1. *A Letter to Dr. Warburton*, 1742, 8vo. 2. *Excerpta ex Instrumentis Publicis de Judæis*, 4to., with other tracts about the Jew bills. 3. *Account of a Copper Table discovered at Heraclea*, 1760. He published many other temporary tracts. He was three times married; and died in 1770.

WEBSTER (Rev. James), a Scottish divine, was educated at St. Andrew's, then under the noted archbishop Sharp, to whom he rendered himself obnoxious by his attachment to Presbyterian principles. Having joined the party who refused to abjure the covenant (see CAMERONIANS, CARGILLITES, &c.), he shared in their persecutions, and underwent two severe imprisonments in Dundee and Dumfries, from the latter of which he was liberated by king James VII.'s act of universal toleration in 1685. On the establishment of Presbyterianism in 1688 he obtained first Liberton, whence he was removed to Whitekirk, and lastly

to Edinburgh, in 1693. He published several sermons, and died in 1720.

WEBSTER (Alexander), D. D., son to the preceding, was born in 1737, studied at Edinburgh, and in 1733 was ordained minister in Culross. In 1737 he was called to the Tolbooth church in Edinburgh. In 1745 he continued in the city when it was taken by the rebels, and all the clergy had fled. By his popularity and eloquence he retained vast numbers loyal to the house of Hanover. He suggested and entirely planned the scheme for the relief of the ministers' widows of the church of Scotland, called the widows' scheme. To him also was owing the first outline of the plan for extending the royalty, and building the new town of Edinburgh. In 1755 he was engaged in a work of vast public utility, being the first Statistical Account of Scotland; and the amount of the population of the different parishes which he procured, other investigations have since proved to be exceedingly accurate. He died in 1784.

WEBSTER (Charles), M. D., a learned physician, born in Dundee, and educated at St. Andrew's, where he also studied divinity. About 1760 he went to Edinburgh, where he practised as a physician, gave lectures on chemistry and materia medica, at the public dispensary, where he was assistant physician along with Mr. Duncan; and became minister of the non-jurant Scottish episcopal congregation in Carrubber's Close, and afterwards of St. Peter's Chapel in Roxburgh place, which he himself built. He lived many years much respected in Edinburgh, and contributed greatly to the procuring the repeal of the penal laws against the Episcopalians of Scotland, and was one of the committee which went to London on that business. He published a short essay, proving condensation to be the cause of heat, and some other chemical tracts. He went abroad during the revolutionary war, and died in the West Indies about 1797. He published also a sermon preached at the opening of St. Peter's Chapel, and an occasional prayer prefixed. A volume of his posthumous sermons has been published for the benefit of his daughters.

WEBSTER (William), a mathematician of London, born in 1684, who kept a school in Leicester-Fields. He translated from the French of La Hoste *A Compendious course of Mathematics*; 2 vols. 12mo. He also wrote a *Treatise on Arithmetic*; and another on *Book-keeping*; and died in 1744, aged sixty.

WECHSEL (Christopher), a celebrated printer of the sixteenth century at Paris; who in 1530 began to print elegant and correct editions of the ancient Greek authors. To make them perfectly accurate, he employed the learned Sylburgius to prepare the copy and correct the proofs. He died in 1572. They were so correct that not two errors could be found in a large folio.

WECHSEL (Andrew), son of Christopher, being a Protestant, about the time of the massacre of Paris, fled to Frankfort and to Basil, where he carried on the printing with equal reputation as his father. He published a catalogue of all the books printed by them both at Frankfort, in 8vo. 1590. He printed also many valuable works at Basil.

WED, *v. a. & v. n.* } Sax. *pebman*. To marry;  
WEDDING, *n. s.* } take for a husband or wife;  
join in marriage; unite or take permanently: to contract matrimony: a wedding is the nuptial ceremony; marriage.

If one by one you *wedded* all the world,  
Or, from the all that are, took something good  
To make a perfect woman; she you killed  
Would be unparalleled.

Shakespeare.

Affliction is enmeshed of thy parts,  
And thou art *wedded* to calamity.

Id.

Come, away!

For you shall hence upon your *wedding-day*.

Id.

Though the principal men of the house of commons  
were again elected to serve in this parliament, yet they  
were far from *wedding* the war.

Clarendon.

Never did thy beauty, since the day  
I saw thee first, and *wedded* thee, adorned

With all perfection, so inflame my senses.

Milton.

These three country bills agree that each *wedding*  
produces four children.

Grawnt.

The women in us still prosecute a deceit like that be-  
gan in the garden; and our understandings are *wedded*  
to an Eve, as fatal as the mother of their miseries.

Glanville.

Men are *wedded* to their lusts, and resolved upon a  
wicked course; and so it becomes their interest to wish  
there were no God.

Tillotson.

Nor took I Guiscard, by blind fancy led,  
Or hasty choice, as many women *wed*;  
But with deliberate care.

Dryden.

A woman seldom asks advice before she has bought  
her *wedding-cloaths*.

Spectator.

Chloe, blind to wit and worth,  
*Weds* the rich dulness of some son of earth.

Pope.

If she affirmed herself a virgin, she must on her  
*wedding day*, and in her *wedding cloaths*, perform the  
ceremony of going alone into the den, and stay an hour  
with the lion.

Swift.

WEDDERBURN (Alexander), earl of Rosslyn,  
was the eldest son of Peter Wedderburn, of Ches-  
ter-hall, esq., one of the senators of the college of  
justice in Scotland. Born in 1733, he was bred  
up to the law in his native country, but early re-  
moved to the Middle Temple, and was called to  
the bar in 1757. He rapidly obtained the patron-  
age of the earls of Bute and Mansfield; was ap-  
pointed solicitor general in 1771, in which office  
he opposed Dr. Franklin, before the privy council  
on American affairs; and in 1778 was made at-  
torney-general. In 1780 he became chief justice  
of the common pleas, with the title of lord Lough-  
borough. He adhered to the party of Mr. Fox  
when Mr. Pitt first came into power; but joined  
the latter, with many others, in 1793, under the  
alarm produced by the French Revolution, when  
he succeeded lord Thurlow as chancellor. This  
high office he held until 1801, when he retired with  
the title of earl of Rosslyn. He died without issue,  
January 3d, 1805. Lord Rosslyn wrote a work  
On the Management of Prisons, published in 1793.

WEDGE, *n.s. & v.a.* Dan. and Goth. *vegge*;  
Belg. *wegge*. A solid body tapering to an edge;  
one of the mechanical powers: to cleave with a  
wedge; to drive in or fix as a wedge; force or  
fasten by wedges.

When I saw a goodly Babylonish garment, and a  
wedge of gold of fifty shekels weight, then I coveted  
them.

Joshua vii.

As sparkles from the anvil used to fly,  
When heavy hammers on the *wedge* are swaid.

Spenser.

My heart,

As *wedged* with a sigh, would rive in twain,  
Lest Hector, or my father, should perceive me.

Shakespeare.

The fifth mechanical faculty is the *wedge* used in the  
cleaving of wood.

Wilkins.

In warlike musters they appear,  
In rhombs, and *wedges*, and half-moons, and wings.

Milton

## Part

In common ranged in figure *wedge* their way,  
Intelligent of seasons.

Id.

Sergesthus in the centaur soon he passed,  
*Wedge* in the rocky shoals and sticking fast.

Dryden.

The oak let many a heavy groan, when he was cleft  
with a *wedge* of his own timber.

Arbutnot.

*Wedge* on the keenest scythes,

And give us steeds that snort against the foe.

A. Philips.

WEDGWOOD (Josiah), esq., F. R., and A. S.S.,  
an English gentleman of uncommon genius, to  
whose indefatigable labors is owing the establish-  
ment of a manufacture that has opened a new scene  
of extensive commerce. He was born in 1731,  
and was the younger son of a potter, but derived  
little or no property from his father. His many  
discoveries of new species of earthen wares and  
porcelains, his studied forms and chaste style of  
decoration, and the correctness and judgment with  
which all his works were executed under his own  
eye, and by artists for the most part of his own  
forming, have turned the current in this branch of  
commerce; for, before his time, England imported  
the finer earthen wares; but, for more than twenty  
years past, she has exported them to a very great  
annual amount. Neither was he unknown in the  
walks of philosophy. His communications to the  
Royal Society show a mind enlightened by science.  
His invention of a thermometer for measuring the  
higher degrees of heat employed in the various  
arts is of the highest importance to their promotion,  
and will add celebrity to his name. He was the  
projector of the grand trunk canal, and the chief  
agent in obtaining the act of parliament for making  
it, against the prejudices of the landed interest.  
His purse was always open to the calls of charity.  
He was a most zealous supporter of commerce,  
and a steady patron of every valuable interest of  
society. He died at his elegant villa of Etruria in  
Staffordshire, January 2d, 1795, aged sixty-four.

WEDLOCK, *n.s.* Sax. *weo* and *lac*. Mar-  
riage and gift. Marriage; matrimony.

She doth stray about  
By holy crosses, where she kneels and prays

For happy *wedlock* hours.

Shakespeare

Can *wedlock* know so great a curse,

As putting husbands out to nurse?

Cleaveland.

He his happiest choice too late

Shall meet already linked, and *wedlock-bound*

To a fell adversary.

Milton.

One thought the sex's prime felicity

Was from the bonds of *wedlock* to be free,

And uncontrolled to give account to none.

Dryden.

WEDNESDAY, *n.s.* Sax. *weodnesdag*; Swed.  
*odensday*; Belg. *woensday*; Island. *wensday*. The  
fourth day of the week, so named by the Gothic  
nations from Woden or Odin.

Where is the honour of him that died on *Wednesday*?

Shakespeare.

The offices of prayer he had in his church, not only  
upon the Sundaies, and festivals, and their eves, as  
also *Wednesdaies* and *Fridaies*.

Fell.

WEE, *adj.* Goth. *weata*, small. Little; small.

Does he not wear a great round beard, like a Glover's  
paring knife?—No, forsooth; he hath but a *wee* face,  
with a little yellow beard.

Shakespeare.

WEED, *n.s. & v.a.* Saxon *weo*, tares. A  
WEED'ER, *n.s.* herb noxious or useless;  
WEED'HOOK, a widow's robe: but this  
WEED'LESS, *adj.* probably from *weawed*, a  
WEED'Y. dress of woe; any gar



ment: to weed is, to rid of weeds; free from any thing noxious: a weeder, he who does this: weed-hook, a hook for extirpating weeds: weedless, free from, and weedy, abounding in, weeds.

He wandering feeds

On slowly growing herbs and ranker weeds. *Sandys.*

In May get a weedhook, a crotch, and a glove, and weed out such weeds as the corn doth not love.

*Tusser.*

My mind for weeds your virtue's livery wears.

*Sidney.*

Wise fathers be not as well aware in weeding from their children ill things, as they were before in grafting in them learning.

*Ascham's Schoolmaster.*

The snake throws her enamelled skin, Weed wide enough to wrap a fairy in.

*Shakspeare.*

There on the pendant boughs her coronet weed

Clambering to hang, an envious sliver broke,

When down her weedy trophies and herself Fell in the weeping hock.

*Id. Hamlet.*

A weeder out of his proud adversaries,

A liberal rewarder of his friends. *Id. Richard III.*

When you sow the berries of bays, weed not the borders for the first half year; for the weed giveth them shade.

*Bacon.*

Her own hands putting on both shirt and weede.

*Chapman.*

So many weedless paradises be, Which of themselves produce no venomous sin.

*Donne.*

If he had an immoderate ambition, which is a weed, it it be a weed, apt to grow in the best soils, it doth not appear that it was in his nature.

*Clarendon.*

Lately your fair hand in woman's weed

Wrapped my glad head.

*Waller.*

A crystal brook,

When troubled most it does the bottom show;

'Tis weedless all above, and rockless all below.

*Dryden.*

Hid in a weedy lake all night I lay,

Secure of safety.

*Id. Æneid.*

WEED, among miners, denotes the degeneracy of a load or vein of fine metal into a useless marcassite.

WEEDS also denote a peculiar habit, worn by the relicts of persons deceased, by way of mourning.

WEEK, *n. s.* Sax. *peoc*; Belg. *weke*;

WEEK'DAY, } Swed. *weka*; Goth. *wika*,

WEEK'LY, *adj. & adv.* } any series or portion of

time. The space of seven days: an ordinary day of the week as distinct from Sunday: happening once a week: hebdominally.

The Jews had always their weekly readings of the law of Moses.

*Hooker.*

The division of time by weeks hath been universally observed in the world, not only amongst the civilized, but likewise among the most barbarous nations.

*Wilkins.*

So lived our sires, ere doctors learned to kill,

And multiplied with heirs their weekly bill.

*Dryden.*

These are obliged to perform divine worship in their turns weekly, and are sometimes called hebdomadal canons.

*Ayliffe.*

One solid dish his weekday meal affords,

An added pudding solemnized the Lord's.

*Pope.*

Nothing more frequent in their weekly papers, than affecting to confound the terms of clergy and high-church, and then loading the latter with calumny.

*Swift.*

WEEK, in chronology. See SABBATH.

WEEN, *v. n.* Sax. *penan*; Belg. *waenen*. To think; imagine; form a notion; fancy. Obsolete.

Ah lady dear, quoth then the gentle knight,

Well may I ween your grief is wondrous great.

*Spenser.*

Thy father, in pity of my hard distress, Levied an army, weening to redeem

And reinstal me in the diadem. *Shakspeare. Henry VI.*

*They weened*

That self same day, by fight or by surprize,

To win the mount of God. *Milton.*

WEEP, *v. n. & v. a.* } *Pret.* and *part. pass.*

WEEPER, *n. s.* } wept, weeped. Sax. *peo-*

*pān*. To shed tears; lament; bewail; shed moisture; drop: one who weeps: a token of mourning worn on the arm.

The days of weeping and mourning for Moses were ended.

*Deuteronomy xxxiv. 8.*

They weep unto me, saying, Give us flesh that we may eat.

*Numbers*

If thou wilt weep my fortunes, take my eyes.

*Shakspeare.*

Then they for sudden joy did weep,

And I for sorrow sung,

That such a king should play bo-peep,

And go the fools among. *Id. King Lear.*

Have you wept for your sin, so that you were indeed sorrowful in your spirit? Are you so sorrowful that you hate it? Do you so hate it that you have left it?

*Taylor.*

Thus was this place

A happy rural seat of various view,

Groves whose rich trees wept odoruous gums and balm.

*Milton.*

Away! with women weep, and leave me here,

Fixed like a man, to die without a tear,

Or save or slay us both.

*Dryden.*

Let India boast her plants; nor envy we

The weeping amber or the balmy tree,

While by our oaks the precious loads are borne,

And realms commanded which those trees adorn.

*Pope.*

Rye-grass grows on clayey and weeping grounds.

*Mortimer.*

WEEVER (John), a learned antiquary, born in Lancashire, and educated at Cambridge. He published a work of great value and curiosity, entitled *Funeral Monuments*, 1631, in folio. Another edition was published in 4to., 1767. He died in 1632.

WEEVIL, *n. s.* Sax. *pepel*; Belg. *vevel*. A grub.

A worm called a weevil, bred under ground, feedeth upon roots, as parsnips and carrots. *Bacon's Nat. Hist.*

Corn is so innocent from breeding of mice that it doth not produce the very weevils that live in it and consume it.

*Bentley.*

WEEVIL, in zoology, a species of curculio. See CURCULIO.

WEEZEL, *n. s.* See WEAZEL.

The corn-devouring weezel here abides,

And the wise ant.

*Dryden's Georgicks.*

WEFT, *n. s.* Fr. *guave*. That of which the claim is generally waived; any thing without an owner.

His horse, it is the herald's weft;

No, 'tis a mare.

*Ben Jonson's Underwoods.*

WEIGELA, in botany, a genus of plants of the class pentandria, and order of monogynia. They bear hermaphrodite flowers, furnished with five stamina, but only one style, and are monopetalous, with the capsule within the flower.

WEIGH, *v. a. & v. n.* } Saxon *weagan*; Belg.

WEIGH'ED, *adj.* } *weyhen*; Teut. *wagen*;

WEIGHT, *n. s.* } Isl. *wega*; Goth. *vaga*.

WEIGHT'ILY, *adv.* } To examine by the bal-

WEIGHT'INESS, *n. s.* } lance; allot or take by

WEIGHT'LESS, *adj.* } weight; counterbalance;

WEIGHTY. } raise; be equivalent in

weight; balance in the mind; compare: as a verb neuter, to have weight or importance; bear heavily; sink: weighed is experienced: weight, quantity ascertained by the balance; mass; gravity; pressure; importance; influence: the other derivatives correspond.

Just balances, just weights, shall ye have.

*Leviticus xix. 36.*

They weighed for my price thirty pieces of silver.

*Zechariah xi.*

So was every thing of the temple, even to the weight of a flesh hook, given to David, as you may see.

*Lesley.*

How by him balanced in the weightless air?

Canst thou the wisdom of his works declare? *Sandys.*

Regard not who it is which speaketh, but weigh only what is spoken. *Hooker.*

Barbarossa, using this exceeding cheerfulness of his soldiers, weighed up the fourteen galleys he had sunk.

*Knolles.*

I to your assistance do make love,

Masking the business from the common eye

'For sundry weighty reasons. *Shakspeare. Macbeth.*

I weigh not you.

—You do not weigh me; that is, you care not for me.

*Shakspeare.*

How to make ye suddenly an answer,

In such a point of weight, so near mine honour,

In truth I know not.

*Id. Henry VIII.*

Earth taken from land adjoining to the Nile, and preserved so as not to be wet or wasted, and weighed daily, will not alter weight until the seventeenth of June. *Bacon.*

They having freight

Their ships with spoil enough, weigh anchor straight.

*Chapman.*

The apparent defect of her judgment, joined to the weightiness of the adventure, caused many to marvel.

*Hayward.*

His majesty's speedy march left that design to be better weighed and digested. *Clarendon.*

Heaviness or weight is not here considered as being such a natural quality, whereby condensed bodies do of themselves tend downwards; but rather as being an affection, whereby they may be measured. *Wilkins.*

Tb' Eternal hung forth his golden scales, Wherein all things created first he weighed. *Milton.*

By the exsuction of the air out of a glass vessel, it made that vessel take up, or suck up, to speak in the common language, a body weighing divers ounces.

*Boyle.*

When gathering clouds o'ershadow all the skies, And shoot quick lightnings, weigh, my boys, he cries.

*Dryden.*

The shaft that slightly was impressed, Now from his heavy fall with weight increased Drove through his neck. *Id.*

It must both weightless and immortal prove, Because the centre of it is above. *Id.*

You have already wearied Fortune so, She cannot farther be your friend or foe, But sits all breathless and admires to feel A fate so weighty that it stops her wheel. *Id.*

The prince may carry the plough, but the weight lies upon the people. *L'Estrange.*

I fear I have dwelt longer on this passage than the weightiness of any argument in it requires. *Locke.*

A wise man is then best satisfied, when he finds that the same argument which weighs with him has weighed with thousands before him, and is such as hath born down all opposition. *Addison.*

Then shun the ill, and know, my dear, Kindness and constancy will prove

The only pillars fit to bear

So vast a weight as that of love.

*Prior.*

Pride, like a gulf, swallows us up; our very virtues, when so leavened, becoming weights and plummets to sink us to the deeper ruin. *Government of the Tongue.*

Boerhaave fed a sparrow with bread four days, in which time it eat more than its own weight; and yet there was no acid found in its body. *Arbuthnot.*

She does not weigh her meat in a pair of scales, but she weighs it in a much better balance; so much as gives a proper strength to her body, and renders it able and willing to obey the soul. *Law.*

WEIGH, a weight of cheese, wool, &c., containing 256 lbs. avoirdupoise. Of corn the weigh contains forty bushels; of barley or malt six quarters. In some places, as Essex, the weigh of cheese is 300 lbs.

WEIGHING ANCHOR is the drawing it out of the ground it had been cast into, in order to set sail or quit a port, road, or the like.

WEIGHING MACHINE. A curious weighing machine was some time ago invented by Mr. Hanin of Paris, whereby the weights of the principal countries in Europe, and the relative proportions they bear to each other, are shown at one view. For this he received a bounty of twenty guineas from the Society of Arts instituted at London. This name has been also given to several ingenious contrivances for the mere common purposes of weighing.

WEIGHTS AND MEASURES. The standard weights and measures of Great Britain have been materially altered since the commencement of our work; and, as we have repeatedly referred to the subject, it will be necessary for us in the first instance to furnish our readers with a brief view of the earliest attempts in this important department of political jurisprudence.

By the twenty-seventh chapter of Magna Charta, the weights are to be the same all over England: but for different commodities there are two different sorts, viz. troy weight, and avoirdupois weight.

The origin from which both of these are raised, is the grain of wheat, gathered in the middle of the ear;

32 of these, well dried, made one pennyweight

20 pennyweights . . . . one ounce, and

12 ounces . . . . . one pound troy;

by stat. 51 Henry III., 31 Edw. I., 12 Henry VII.

A learned writer has shown that, by the laws of assize, from William the Conqueror to the reign of Henry VII., the legal pound weight contained a pound of twelve ounces, raised from thirty-two grains of wheat; and the legal gallon measure contained eight of those pounds of wheat, eight gallons making the bushel, and eight bushels the quarter.

Henry VII. altered the old English weight, and introduced the troy pound in its stead, being three-quarters of an ounce only heavier than the old Saxon pound, or one-sixteenth heavier. The first statute that directs the use of the avoirdupois weight is that of 24 Henry VIII.; and the particular use to which this weight is thus directed is simply for weighing butcher's meat in the market; though it has been used for weighing all sorts of coarse and large articles. This pound contains 7000 troy grains; while the troy pound itself contains only 5760 grains, and the old Saxon pound weight but 5400 grains. *Philosophical Transactions, vol. lxx. art. 3.*

Hence there are now in common use in England two different weights, viz. troy weight and avoirdupois weight, the former being employed in weighing such fine articles as jewels, gold, silver:



silk, liquors, &c.; and the latter for coarse and heavy articles, as bread, corn, flesh, butter, cheese, tallow, pitch, tar, iron, copper, tin, &c., and all grocery wares. And Mr. Ward supposes that it was brought into use from this circumstance, viz. as it was customary to allow larger weight, of such coarse articles, than the law had expressly enjoined, and this he observes happened to be a sixth part more. Apothecaries buy their drugs by avoirdupois weight, but they compound them by troy weight, though under some little variation of name and divisions.

We must now furnish the present standard as it has been promulgated by a committee of the House of Commons. The report is divided under four heads; and the substance of that important document is annexed:—

In the first and second clauses of this act it is enacted that the old standard yard of 1760, in the custody of the clerk of the House of Commons, shall continue to be the standard unit of extension, or lineal, superficial, and solid measures, when the temperature is at 62° of Fahrenheit's thermometer. From this it is evident that no change is to be made upon these measures throughout the empire, and that all the measurements depending upon them are to remain the same as before. In Scotland, however, considerable changes must take place, especially in the measurement of land, which is universally measured by the Scots acre, raised from the Scots chain, or twenty-four times the length of the Scots ell. This ell, according to the oldest and best authority, is 37½ English inches, from which standard of course, the equalization of the Scots' land measures must be derived.

In the third clause it is enacted that, if the standard yard should be lost or injured, it is to be restored by a reference to the length of the pendulum, vibrating seconds in the latitude of London, at the level of the sea, and in vacuo. This length has been found, and is by the act declared to be 39.1393 inches. Hence the length of the yard to that of the pendulum is in the proportion of thirty-six inches to 39.1393 inches, or of the number 360,000 to the number 391,393; so that if the length of the pendulum be divided into 391,393 equal parts, then will 10,000 of these parts be the length of an inch, according to the imperial standard.

The fourth clause enacts that the old troy pound of 1758, now in the custody of the clerk of the House of Commons, shall continue to be the standard unit of weight; and that the avoirdupois pound, now in use, shall contain 7000 grains, of which the troy pound contains 5760, according to this act. Hence, contrary to the opinion of many writers, the weight of the troy or standard pound, to that of the avoirdupois or common pound, is in the proportion of 5760 grains to 7000 grains; or of the number 144 to the number 175. Hence, also, no change will take place in the transactions of business where such weights were used formerly; but in Scotland numerous changes of weights must occur in the sale of many articles of ordinary consumption. These changes will be not only different in almost every county, but even sometimes different in various parts of the same county. The use of the Dutch or Scots troy pound, and of the tron which varies so much throughout that country, will be utterly abolished, and all local enactments regarding them rendered nugatory. According to the best authorities, the standard Dutch or Scots troy

(or, as it is sometimes called, the Lanark pound) contains 7621½ English troy grains; and the old Tron, most in use, 10003½ English troy grains: upon these data our tables of equalisation for the weights of Scotland are founded.

In the sixth clause it is enacted that, if the standard troy pound should be lost or destroyed, it is to be restored by a reference to the weight of a cubic inch of distilled water, which has been found, and is declared to be 252.458 troy grains, at the temperature of 62° Fahrenheit, the barometer being at thirty inches. Hence the weight of a pennyweight troy is to that of a cubic inch of distilled water, in such circumstances, in the proportion of twenty-four grains to 252.458 grains, or of the number 24,000 to the number 252,458; so that the weight of the cubic inch of water must be divided into 252,458 equal parts, and 24,000 of them will be the standard pennyweight, from which the ounce and the pound, its multiples, can be easily derived.

The sixth clause enacts that, the new standard measure of capacity for all liquids, and dry goods not measured by heaping, shall be a gallon containing ten pounds avoirdupois weight of distilled water, weighed in air at the temperature of 62° Fahrenheit's thermometer, the barometer being at thirty inches; that the quart shall be the fourth part of this imperial standard gallon, and the pint one-eighth; that two such gallons shall be a peck, and eight shall be a bushel; and that eight such bushels shall be a quarter of corn, or other dry goods, not measured by heaped measure. To find the capacity of this new gallon, it is necessary to refer to the fifth clause of the act, where we have the standard weight of a cubic inch of water given in grains; hence we find the number of cubic inches in the gallon by the following proportion:—As 252.458 grains: 1 cubic inch :: 10lbs., or 70,000 grains: 277.274 cubic inches, which are consequently the contents of the imperial standard gallon. Though the identification of this gallon is thus remotely connected with the standard of length, and still more so with the length of the pendulum, yet it may be proper here to point out a mode of verifying it, and restoring it, if ever the standards of weight or measure should be lost or destroyed. The contents of the cube of the sixth part of the length of the pendulum vibrating seconds in the latitude of London, at the level of the sea and in a vacuum, are so very near that of the imperial standard gallon, that the difference is only about ⅓ of a cubic inch. For one-sixth part of the length of the pendulum is 6.5232166 inches; and the cube of this is nearly 277.578 cubic inches, which differs from the contents of the gallon only by .304 of a cubic inch. Now this difference is so small that the one may be reckoned a sufficient identification of the other, a circumstance which brings this gallon nearer to a fixed and invariable standard than perhaps was ever thought of. Another circumstance of considerable importance may be remarked, as it serves to render the standard of weight, determined by water, independent of thermometric graduations. The temperature (62° Fahrenheit's thermometer) at which the water has been fixed for the determination of the standards of weight and measure is one which is situated above the freezing point, at exactly the sixth part of the distance between the freezing and the boiling points. The connexion of these two facts will therefore render the standards of weight

and of measure so far invariable in future, inasmuch as they are independent of artificial measurements and graduations, and can be easily referred to nature alone for their prototypes; 1. That the cube of the sixth part of the second's pendulum at London is so near the capacity of the imperial standard gallon as to be considered an identification; and, 2. That the tenth part of the weight of an imperial standard gallon of water, at a temperature above that of freezing (in the mercurial thermometer), which is exactly the sixth part of the distance between the freezing and boiling points, is an imperial standard avoirdupois pound.

The changes which this alteration in the standard of capacity produces are very great. By this clause the old standard wine gallon of 231 cubic inches, the old standard ale and beer gallon of 282 cubic inches, the old standard corn gallon of 268·8 cubic inches, or the standard Winchester bushel of 2150·42 cubic inches, the old standard Scots pint (or Stirling jug) of 103·404 cubic inches, and the

old standard Scots wheat and barley firlots (commonly called the Linlithgow wheat and barley firlots), with all other local measures of every description, are completely abolished. The seventh clause enacts that the standard measure of capacity for goods sold by heaped measure shall be the bushel, containing eight imperial gallons, or eighty avoirdupois pounds of water at the above-mentioned temperature; and that it shall be made round, with a plain and even bottom, and be 19½ inches from outside to outside. In the eighth clause it further enacts that, in using this bushel, it shall be heaped, in the form of a cone, to the height of six inches, and the outside of the bushel is to be the extremity of the base of this cone. In the clause appended to the bill, above alluded to, it is enacted that all such measures shall be made cylindrical, and that their diameters shall be at the least double their depths, and the height of the cone or heap shall be equal to three-fourths of the depth of each measure its outside being the extremity or base of the cone

### 1. Long Measure.

|  |                   |   | Pendulums.  |
|--|-------------------|---|-------------|
| $\frac{1}{59.1553}$ th of the Pendulum | = 1 Inch          | = | ·025550     |
| 12 Inches                              | = 1 Foot          | = | ·306597     |
| 3 Feet                                 | = 1 Yard          | = | ·919792     |
| 5½ Yards                               | = 1 Pole or Perch | = | 5·058854    |
| 40 Poles or 220 Yards                  | = 1 Furlong       | = | 202·354156  |
| 8 Furlongs or 1760 Yards               | = 1 Mile          | = | 1618·833244 |

N. B.—The English land chain = 22 yards or 66 feet, and contains 100 links; 1 link = 7·92 inches.

### 2. Square or Superficial Measure.

|   |                  |   | Square Pendulum |
|---|------------------|---|-----------------|
| $\frac{1}{1551.7630}$ th of the Square Pendulum | = 1 Square Inch  | = | ·000653         |
| 144 Square Inches                               | = 1 Square Foot  | = | ·094002         |
| 9 Square Feet                                   | = 1 Square Yard  | = | ·846017         |
| 30½ Square Yards                                | = 1 Square Pole  | = | 25·592003       |
| 40 Square Poles or 1210 Square Yards            | = 1 Rood of land | = | 1023·680107     |
| 4 Roods or 4840 Square Yards                    | = 1 Acre of land | = | 4094·720426     |

N. B.—The Square Chain = 484 Square Yards, and 10 Square Chains = 1 Acre.

### 3. Cubic or Solid Measure.

|  |                |   | Cubic Pendulums. |
|--|----------------|---|------------------|
| $\frac{1}{2792.5095}$ th of the Cubic Pendulum | = 1 Cubic Inch | = | ·0000176         |
| 1728 Cubic Inches                              | = 1 Cubic Foot | = | ·0288207         |
| 27 Cubic Feet                                  | = 1 Cubic Yard | = | ·7781587         |

N. B.—A Cubic Foot of distilled water, at 62° Fahrenheit, weighs almost exactly 997·136969 Ounces Avoirdupois, and at the maximum density 999·2777 Ounces Avoirdupois.

### 4. Troy Weight.

|   |                 |   | Cubic Inches of Water. |
|---|-----------------|---|------------------------|
| $\frac{1}{251.543}$ th of a Cubic Inch of water | = 1 Grain       | = | ·0039610571428         |
| 24 Grains                                       | = 1 Pennyweight | = | ·0950653714285         |
| 20 Pennyweights                                 | = 1 Ounce       | = | 1·901307428571         |
| 12 Ounces                                       | = 1 Pound       | = | 22·815689142857        |

N. B.—A Cubic Inch of distilled water, at the maximum density, weighs 252 Troy Grains.

### 5. Avoirdupois Weight.

|            |                    |   | Cubic Inches of Water. | New Gallons of Water |
|------------|--------------------|---|------------------------|----------------------|
| 27½ Grains | = 1 Dram           | = | ·10831015625           | $\frac{1}{320}$      |
| 16 Drams   | = 1 Ounce          | = | 1·7329625              | $\frac{1}{160}$      |
| 16 Ounces  | = 1 Pound          | = | 27·7274                | $\frac{1}{10}$       |
| 28 Pounds  | = 1 Quarter cwt.   | = | 776·3672               | $\frac{1}{2}$        |
| 4 Quarters | = 1 Hundred weight | = | 3105·4688              | $\frac{11}{16}$      |
| 20 Cwt.    | = 1 Ton            | = | 6210·93760             | $\frac{1}{224}$      |

N. B.—175 Troy Pounds = 144 Avoirdupois Pounds; and 175 Troy Ounces = 192 Avoirdupois Ounces.



## 6. Imperial Gallon Measure.

|                      |             | Pounds           | Avoirdupois | Cubic Inches |
|----------------------|-------------|------------------|-------------|--------------|
|                      |             | of Water.        |             | of Water.    |
| 5 Ounces Avoirdupois | = 1 Gill    | = $\frac{5}{16}$ | =           | 8.6643125    |
| 4 Gills              | = 1 Pint    | = $\frac{1}{4}$  | =           | 34.65925     |
| 2 Pints              | = 1 Quart   | = $\frac{1}{2}$  | =           | 69.3185      |
| 4 Quarts             | = 1 Gallon  | = 1              | =           | 277.274      |
| 2 Gallons            | = 1 Peck    | = 20             | =           | 554.548      |
| 4 Pecks or 8 Gallons | = 1 Bushel  | = 80             | =           | 2218.192     |
| 8 Bushels            | = 1 Quarter | = 640            | =           | 17745.536    |

N. B.—The proportion of the Imperial Gallon to the Wine Gallon is as 6 to 5 nearly, to the Ale Gallon as 59 to 60 nearly, and to the Corn Gallon as 33 to 32 nearly; its proportion to the Stirling Pint is as 59 to 22 nearly.

## 7. Heaped Measure.

|                    |              | Pounds    | Avoirdupois | Cubic Inches |
|--------------------|--------------|-----------|-------------|--------------|
|                    |              | of Water. |             | of Water.    |
| 8 Imperial Gallons | = 1 Bushel   | = 80      | =           | 2218.192     |
| 3 Bushels          | = 1 Sack     | = 240     | =           | 6654.576     |
| 12 Sacks           | = 1 Chaldron | = 2880    | =           | 79854.912    |

N. B.—The depth of the Imperial Bushel is required by the Act to be eight inches, though this is not expressed; because the height of the heap or cone is six inches, and this must be equal to three-fourths of the depth.

N. B.—The proportion of the Imperial Bushel to the Linlithgow Wheat Firlok is as 106 to 105 nearly, and to the Barley Firlok as 92 to 133 nearly.

## 8. Dimensions of the Dry Measures.

| Imperial Dry Measures.        | Depth.  | Inside Diameter. | Outside Diameter at the mouth. | Breadth at the edge. | Height of the Heap. | Content when not heaped. | Content when heaped. |
|-------------------------------|---------|------------------|--------------------------------|----------------------|---------------------|--------------------------|----------------------|
|                               | Inches. | Inches.          | Inches.                        | Inches.              | Inches.             | Cubic Inches.            | Cubic Inches.        |
| Bushel . . . . .              | 8.00000 | 18.78925         | 19.50000                       | 3.5538               | 6.00000             | 2218.192                 | 2815.488             |
| Half Bushel . . . . .         | 6.34960 | 14.91304         | 15.47716                       | 2.8206               | 4.76220             | 1109.096                 | 1407.744             |
| Peck . . . . .                | 5.03968 | 11.83648         | 12.28422                       | 2.2387               | 3.77976             | 554.548                  | 703.872              |
| Gallon or Half Peck . . . . . | 4.00000 | 9.39463          | 9.75000                        | 1.7769               | 3.00000             | 277.274                  | 351.936              |
| Half Gallon . . . . .         | 3.17480 | 7.45652          | 7.73858                        | 1.4103               | 2.38110             | 138.637                  | 175.968              |
| Quart . . . . .               | 2.51984 | 5.91824          | 6.14211                        | 1.1194               | 1.88988             | 69.3185                  | 87.984               |

## Approximate Dimensions of the Dry Measures.

| Imperial Dry Measure. | Depth.           | Inside Diameter. | Outside Diameter at the mouth. | Breadth at the edge. | Height of the Heap. |
|-----------------------|------------------|------------------|--------------------------------|----------------------|---------------------|
|                       | Inches.          | Inches.          | Inches.                        | Inches.              | Inches.             |
| Bushel . . . . .      | 8                | 18 $\frac{1}{2}$ | 19 $\frac{1}{2}$               | $\frac{3}{4}$        | 6                   |
| Half Bushel . . . . . | 6 $\frac{3}{4}$  | 14 $\frac{1}{2}$ | 15 $\frac{1}{2}$               | $\frac{5}{16}$       | 4 $\frac{1}{2}$     |
| Peck . . . . .        | 5 $\frac{1}{16}$ | 11 $\frac{1}{2}$ | 12 $\frac{3}{16}$              | $\frac{1}{4}$        | 3 $\frac{1}{2}$     |
| Gallon . . . . .      | 4                | 9 $\frac{3}{4}$  | 9 $\frac{3}{4}$                | $\frac{7}{16}$       | 3                   |
| Half Gallon . . . . . | 3 $\frac{3}{16}$ | 7 $\frac{7}{16}$ | 7 $\frac{7}{16}$               | $\frac{1}{4}$        | 2 $\frac{1}{2}$     |
| Quart . . . . .       | 2 $\frac{1}{2}$  | 5 $\frac{1}{2}$  | 6 $\frac{1}{2}$                | $\frac{1}{4}$        | 1 $\frac{1}{2}$     |

## Tables of Equalisation.

In the following tables of equilisation the most exact proportions are adopted, viz. 277274 English Wine Gallons = 231000 Imperial Gallons; 277274 English Ale Gallons = 282000 Imperial Gallons; 277274 English Corn Gallons = 268800 Imperial Gallons; 138637 Standard Scots Pints = 103404 Imperial Half Gallons; 2218192 Standard Wheat Firlots = 2197335 Imperial Bushels; 2218192 Standard Barley Firlots = 3205524 Imperial Bushels; 7000 Troy Pounds = 5760 Avoirdupois Pounds; 7000 Dutch or Scots Troy Pounds = 7621 $\frac{1}{2}$  Avoirdupois Pounds; 7000 old Tron Pounds = 10003 $\frac{1}{4}$  Avoirdupois Pounds; 32 Glasgow Tron Pounds = 45 Avoirdupois Pounds; 360 Standard Scots Ells = 372 Imperial Yards; and 3025 Standard Scots Acres = 3844 Imperial Acres. These tables are also Equilisation Tables of Prices, as well as of Weights and Measures, but in the inverse ratio of the latter. Thus, for example, 1 lb. Tron. = 1.429091 lb. Avoirdupois; but, when the price of a lb. Avoirdupois is = 1, the price of a lb. Tron is = 1.429091. Also 1 lb. Avoirdupois = .699746 lb. Tron; but, when the price of a lb. Tron is = 1, the price of a lb. Avoirdupois is = .699746; the whole of the tables are calculated to the nearest millionth part of a unit.

## WEIGHTS AND MEASURES.

|   | English Wine<br>Gallon =<br>Imperial Gal. | English Ale<br>Gallon =<br>Imperial Gal. | English Corn Gal. or<br>Bush. = Imperial<br>Gallon or Bushel. | Standard Scots<br>Pint = Imperial<br>Half Gallon. |
|---|---|--|---|---|
| 1 | 0.833111                                  | 1.017045                                 | 0.969438  | 0.748615  |
| 2 | 1.666222                                  | 2.034089                                 | 1.938876  | 1.497230  |
| 3 | 2.499333                                  | 3.051134                                 | 2.908315  | 2.245845  |
| 4 | 3.332444                                  | 4.068178                                 | 3.877753  | 2.994460  |
| 5 | 4.165555                                  | 5.085223                                 | 4.847191  | 3.743075  |
| 6 | 4.998666                                  | 6.102267                                 | 5.816629  | 4.491690  |
| 7 | 5.831777                                  | 7.119312                                 | 6.786067  | 5.240305  |
| 8 | 6.664887                                  | 8.136356                                 | 7.755505  | 5.988920  |
| 9 | 7.497998                                  | 9.153401                                 | 8.724944  | 6.737534  |

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|   | Standard Wheat<br>Firlot =<br>Imperial Bushel. | Standard Barley<br>Firlot =<br>Imperial Bushel. | Imperial Gallon<br>= English<br>Wine Gallon. | Imperial Gallon<br>= English<br>Ale Gallon |
|---|--|---|--|--|
| 1 | 0.990597                                       | 1.445161  | 1.200320                                     | 0.983241                                   |
| 2 | 1.981195                                       | 2.890321  | 2.400641                                     | 1.966482                                   |
| 3 | 2.971792                                       | 4.335482  | 3.600961                                     | 2.949723                                   |
| 4 | 3.962389                                       | 5.780643  | 4.801281                                     | 3.932965                                   |
| 5 | 4.952986                                       | 7.225803  | 6.001602                                     | 4.916206                                   |
| 6 | 5.943584                                       | 8.670964  | 7.201922                                     | 5.899447                                   |
| 7 | 6.934181                                       | 10.116125                                       | 8.402242                                     | 6.882688                                   |
| 8 | 7.924778                                       | 11.561285                                       | 9.602563                                     | 7.865929                                   |
| 9 | 8.915376                                       | 13.006446                                       | 10.802883                                    | 8.849170                                   |

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|   | Imperial Gal. or<br>Bush. = English<br>Corn Gal. or Bushel. | Imp. Half Gal.<br>= Standard<br>Scots Pint. | Imperial Bushel<br>= Standard<br>Wheat Firlot. | Imperial Bushel<br>= Standard<br>Barley Firlot. |
|---|---|---|--|---|
| 1 | 1.03152   | 1.340731                                    | 1.009492                                       | 0.691990  |
| 2 | 2.063051  | 2.681463                                    | 2.018984                                       | 1.383981  |
| 3 | 3.094576  | 4.022194                                    | 3.028476                                       | 2.075971  |
| 4 | 4.126101  | 5.362926                                    | 4.037968                                       | 2.767962  |
| 5 | 5.157626  | 6.703657                                    | 5.047460                                       | 3.459952  |
| 6 | 6.189152  | 8.044389                                    | 6.056952                                       | 4.151943  |
| 7 | 7.220677  | 9.385120                                    | 7.066444                                       | 4.843933  |
| 8 | 8.252202  | 10.725852                                   | 8.075936                                       | 5.535924  |
| 9 | 9.283728  | 12.066583                                   | 9.085428                                       | 6.227914  |

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|   | Troy<br>lb. =<br>Imperial lb. | Standard Dutch or Scots<br>Troy lb. =<br>Imperial lb. | Old Tron<br>lb. =<br>Imperial lb. | Glasgow Tron<br>lb. =<br>Imperial lb. |
|---|-------------------------------|---|-----------------------------------|---------------------------------------|
| 1 | 0.822857                      | 1.088831  | 1.429091                          | 1.40625                               |
| 2 | 1.645714                      | 2.177662  | 2.858182                          | 2.81250                               |
| 3 | 2.468571                      | 3.266494  | 4.287273                          | 4.21875                               |
| 4 | 3.291429                      | 4.355325  | 5.716364                          | 5.62500                               |
| 5 | 4.114286                      | 5.444156  | 7.145455                          | 7.03125                               |
| 6 | 4.937143                      | 6.532987  | 8.574545                          | 8.43750                               |
| 7 | 5.760000                      | 7.621818  | 10.003636                         | 9.84375                               |
| 8 | 6.582857                      | 8.710649  | 11.432727                         | 11.25000                              |
| 9 | 7.405714                      | 9.799481  | 12.861818                         | 12.65625                              |

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|   | Standard Scots<br>Ell = Im-<br>perial Yard. | Standard Scots<br>Acre = Im-<br>perial Acre. | Imperial<br>lb. =<br>Troy lb. | Imperial lb.<br>= Standard<br>Dutch lb. |
|---|---|--|-------------------------------|---|
| 1 | 1.033333                                    | 1.270744                                     | 1.215278                      | 0.918412                                |
| 2 | 2.066667                                    | 2.541488                                     | 2.430556                      | 1.836824                                |
| 3 | 3.100000                                    | 3.812231                                     | 3.645833                      | 2.755237                                |
| 4 | 4.133333                                    | 5.082975                                     | 4.861111                      | 3.673649                                |
| 5 | 5.166667                                    | 6.353719                                     | 6.076389                      | 4.592061                                |
| 6 | 6.200000                                    | 7.624463                                     | 7.291667                      | 5.510473                                |
| 7 | 7.233333                                    | 8.895207                                     | 8.506944                      | 6.428885                                |
| 8 | 8.266667                                    | 10.165950                                    | 9.722222                      | 7.347298                                |
| 9 | 9.300000                                    | 11.436694                                    | 10.937500                     | 8.265710                                |

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|   | Imperial lb. =<br>Old Tron lb. | Imperial lb. =<br>Glasgow Tron lb. | Imperial Yard =<br>Stand. Scots Ell. | Imperial Acre =<br>Stand. Scots Acre. |
|---|--------------------------------|------------------------------------|--------------------------------------|---------------------------------------|
| 1 | 0.699746                       | 0.711111                           | 0.967742                             | 0.786941                              |
| 2 | 1.399491                       | 1.422222                           | 1.935484                             | 1.573881                              |
| 3 | 2.099237                       | 2.133333                           | 2.903226                             | 2.360822                              |
| 4 | 2.798982                       | 2.844444                           | 3.870968                             | 3.147763                              |
| 5 | 3.498728                       | 3.555556                           | 4.838710                             | 3.934703                              |
| 6 | 4.198473                       | 4.266667                           | 5.806452                             | 4.721644                              |
| 7 | 4.898219                       | 4.977778                           | 6.774194                             | 5.508585                              |
| 8 | 5.597964                       | 5.688889                           | 7.741935                             | 6.295525                              |
| 9 | 6.297710                       | 6.400000                           | 8.709677                             | 7.082466                              |



**WEIMAR, SAXE**, a small independent state of Germany, with the title of a grand duchy. It consists of several districts, the surface of which, when added together, form an area of 1450 square miles, with somewhat more than 200,000 inhabitants. The whole is divided into two parts or provinces. The province of Weimar comprehending the duchies of Weimar and Jena, with part of the principality of Altenburg, the chief part of the circle of Neustadt, and the petty districts of Ilmenau, Oldisleben, and Alstadt, which lie scattered in Thuringia. The extent of this province is 970 square miles; its population above 135,000. The other, called the province of Eisenach, comprises the duchy of that name, with some districts to the east of the Hesse-Cassel territory, acquired in 1815. The area is 480 square miles; the population above 66,000.

The soil, being in general fertile, yields corn enough for consumption; and the pastures on the hills feed numerous flocks of sheep; but the larger cattle are less attended to. The province of Eisenach is more mountainous, and consequently less productive, than that of Weimar. Its chief wealth is in its forests, its pasturages, its mines and quarries. Hemp and flax are reared; but the growth of corn is inadequate to the consumption. Manufactures of linen and hardware are carried on to some extent. The revenue is about £150,000 a year. The military are reduced at present to 1000 men. This was the first state of Germany which, after the downfall of Buonaparte, received from its sovereign a parliament on a liberal plan.

**WEIMAR**, the capital of the grand duchy, is situated on the banks of the river Ilm, fifty miles W. S. W. of Leipzig, with a woody mountain to the north, and hills of little elevation to the south and east, while the river winds along the south side of the town. The prospect, if not striking, is pleasant. The town itself is built in a plain and somewhat antique style: its population somewhat exceeds 8000. The grand ducal residence is a large castle, finely situated to the east, with a park extending along the banks of the Ilm, and open to the public. The Belvedere, another residence of the reigning family, is situated on a delightful eminence to the south. Weimar has long held a high rank in Germany for literature. Early in the present century, Weimar reckoned among its residents above twenty writers of note, at the head of whom were Schiller, Goethe, Herder, Wieland, and, for a time, Kotzebue. The public institutions, if not numerous or extensive, are useful and well managed. For education, there is a classical school, a seminary for schoolmasters, and an academy for drawing, painting, and sculpture. The public library, containing above 100,000 volumes, is well selected; and here is an institution of great extent, though a private establishment, connected with the study of geography and statistics. Maps, globes, geographical publications, periodical and permanent, all issue from this repository in great numbers. Lithography is applied to maps, and in some degree to books. The inhabitants derive their support chiefly from the residence of the court.

**WELCHPOOL**, a market-town in Pool hundred, Montgomery, nine miles north of Montgomery, and 177 from London. The town is pleasantly situate at the bottom of a hill, so that the upper part of the church-yard is nearly on a level with its roof. The market-house is neat and con-

venient. The county hall is a modern brick structure, principally occupied by the court used for holding the county assizes, but in which are also assembly rooms. In this building is the great mart for Welsh flannels, which are manufactured in the upper part of the county. The river Severn passes near the town, and is navigable to Pool-Quay, about three miles below Welchpool. The Montgomeryshire canal also passes through Welsh-pool. It is governed by two bailiffs, a high steward, recorder, and town-clerk, sergeants at mace, &c. Powis Castle stands on an eminence in the neighbourhood, and is the noble residence of the earl Powis. Market on Monday.

**WEL'COME**, *adj.*, *interj.*, *n. s.*, } Saxon *pil-*  
**WEL'COMENESS**, *n. s.* } *cume*; French  
**WEL'COMER**. } *bien venu*;

Dutch *welkom*. Received with gladness; admitted willingly; grateful; pleasing: a form of salutation; a kind salutation: to welcome is to salute with kindness or hospitality: welcomeness and welcomer correspond.

I should be free from injuries, and abound as much in the true causes of *welcomes*, as I should find want of the effects thereof. *Sidney.*

I serve you, madam;

Your graces are right *welcomes*.

*Shakespeare.*

I know no cause

Why I should welcome such a guest as grief. *Id.*

Farewel, thou woeful *welcomer* of glory! *Id.*

Some stood in a row in so civil a fashion, as if to welcome us; and divers put their arms a little abroad, which is their gesture when they bid any *welcome*. *Bac.*

Here let me earn my bread,

Till oft invocated death

Hasten the *welcome* end of all my pains. *Milton.*

Our joys, after some centuries of years, may seem to have grown older, by having been enjoyed so many ages; yet will they really still continue new, not only upon the scores of their *welcomeness*, but by their perpetually equal, because infinite, distance from a period. *Boyle.*

*Welcome*, he said,

O long-expected, to my dear embrace! *Dryden.*

He that knows how to make those he converses with easy, has found the true art of living, and being *welcome* and valued every where. *Locke.*

**WELD**, *v. a.* Sax. *weld*; Goth. *ald*, fire. To beat one heated mass of metal into another.

Sparkling or *welding* heat is used when you double up your iron to make it thick enough, and so *weld* or work in the doublings into one another. *Moxon.*

**WELD**, or **WOLD**, in botany. See **RESEDA**.

**WELDING HEAT**, in smithery, a degree of heat given to iron, &c., sufficient to make the surfaces of two pieces incorporate upon being beaten together with a hammer. See **IRON**.

**WELFARE**, *n. s.* Well and fare. Happiness; success; prosperity.

If friends to a government forbear their assistance, they put it in the power of a few desperate men to ruin the *welfare* of those who are superior to them in strength and interest. *Addison.*

Discretion is the perfection of reason: cunning is a kind of instinct that only looks out after our immediate interest and *welfare*. *Addison.*

**WELKIN**, *n. s.* From Saxon *pealcen*, to roll, or *pelcen*, clouds. The visible regions of the air. Only used in poetry.

Ne in all the *welkin* was no cloud. *Chaucer.*

He leaves the *welkin* way most beaten plain. *Spenser.*

The swallow peeps out of her nest,

And cloudy *welkin* cleareth.

*Id.*

Spur your proud horses hard, and ride in blood ;  
Amaze the *welkin* with your broken staves. *Shaks.*

With feats of arms

From either end of heaven the *welkin* burns. *Milton.*

WELL, *n. s., v. n., v. a., adj.*

WELL-BEING, *n. s.* [*& adv.*

WELL-BORN, *adj.*

WELL-BRED,

WELL-DONE, *interj.*

WELFARE, *n. s.*

WELL-FAVORED, *adj.*

WELL-MET,

WELL-NATURED,

WELL-NIGH, *adv.*

WELL-SPENT, *adj.*

WELL-SPRING, *n. s.*

WELL-WILLER,

WELL-WISH,

WELL-WISHER.

Sax. *pelle*, *pæll* ;

Gothic *vella*. A

spring ; fountain ;

source ; pit of water ;

any deep cavity : to

well is to issue as

from a spring ; to

pour forth : as an

adjective, healthy ;

happy ; convenient ;

recovered : as an ad-

verb, properly ; skil-

fully ; completely ;

favorably : well is

much used in com-

position to express that which is right, laudable, or complete ; and this, with the extracts, will explain the compounds.

The plain of Jordan was *well* watered every where.

*Genesis.*

We are *well* able to overcome it. *Numbers* xiii. 30.

My feet were almost gone : my steps had *well-nigh* slipped.

*Psalms.*

Understanding is a *well-spring* of life. *Prov.* xvi. 22.

Instead of *well-set* hair, baldness. *Isaiah* iii. 24.

*Well-done*, thou good and faithful servant.

*Matthew* xxv. 21.

Disarming all his own countrymen, that no man might shew himself a *well-willer* of mine.

*Sidney.*

The knot might *well* be cut, but untied it could not be.

*Id.*

He, by enquiry, got to the *well-known* house of Kalander.

*Id.*

Thereby a crystal stream did gently play,  
Which from a sacred fountain *well*led forth alway.

*Spenser.*

To her people wealth they forth do *well*,

And health to every foreign nation.

*Id.*

The fountain and *well-spring* of impiety is a resolved purpose of mind to reap in this world what sensual profit or sensual pleasure soever the world yieldeth.

*Hooker.*

Once more to-day *wellmet*, distempered lords ;  
The king by me requests your presence straight. *Shaks.*

His wife seems to be *well-favoured*. I will use her as the key of the cuckoldly rogue's coffer.

*Id.*

He rails

On me, my bargains, and my *well-won* thrift,

Which he calls interest.

*Id. Merchant of Venice.*

Lady, I am not *well*, else I should answer

From a full flowing stomach.

*Id. King Lear.*

Those opposed files,

Which lately met in the intestine shock

And furious close of civil butchery,

Shall now in mutual *well-beseeming* rank

March all one way.

*Id. Henry IV.*

*Well*, let's away, and say how much is done. *Shaks.*

Oh you are *well-tuned* now ; but I'll let down the pegs that make this music.

*Id. Othello.*

I like *well*, in some places, fair columns upon frames of carpenters' work.

*Bacon.*

The fruits of unity, next unto the *well-pleasing* of God, which is all in all, are towards those that are without the church ; the other towards those that are within.

*Id.*

England was *wellnigh* ruined by the rebellion of the barons, and Ireland utterly neglected.

*Davies.*

As the root and branch are but one tree,

And *well* and stream do but one river make ;

So if the root and *well* corrupted be,

The stream and branch the same corruption take. *Id.*

A private caution I know not *well* how to sort, unless I should call it political, by no means to build too near a great neighbour.

*Wotton.*

Man is not to depend upon the uncertain dispositions of men for his *wellbeing*, but only on God and his own spirit.

*Taylor's Holy Living.*

Many sober, *well-minded* men, who were real lovers of the peace of the kingdom, were imposed upon.

*Clarendon.*

Such music

Before was never made,

But when of old the sons of morning sung,

Whilst the Creator great

His constellations set,

And the *well-balanced* world on hinges hung. *Milton.*

None have been with admiration read,

But who, besides their learning, were *well-bred*.

*Roscommon.*

One whose extraction from an ancient line

Gives hope again that *well-born* men may shine.

*Waller.*

Her *well-turned* neck he viewed,

And on her shoulders her dishevelled hair. *Dryden.*

*Well-meaners* think no harm ; but for the rest,

Things sacred they pervert, and silence is the best. *Id.*

He, full of fraudulent arts,

This *well-invented* tale for truth imparts.

*Id.*

He followed the fortunes of that family ; and was *well* with Henry the Fourth.

*Id.*

The conscience of *well-doing* may pass for a recompence.

*L'Estrange.*

They are to lie down without any thing to support them in their age, but the conscience of a *wellspent* youth.

*Id.*

What a pleasure is *well-directed* study in the search of truth.

*Loche.*

The applause that other people's reason gives to virtuous and *well-ordered* actions is the proper guide of children till they grow able to judge for themselves.

*Id.*

Procure those that are fresh gathered, straight, smooth, and *well-rooted*.

*Mortimer's Husbandry.*

Suppose the *well-hole* to be eleven foot long, and six foot wide ; and we would bring up a pair of stairs from the first floor eleven foot high.

*Moxon.*

Whoever shall read over St. Paul's enumeration of the duties incumbent upon it, might conclude that *well-nigh* the whole of Christianity is laid on the shoulders of charity alone.

*Sprat's Sermons.*

He conducted his course among the same *well-chosen* friendships and alliances with which he began it.

*Addison.*

Just thoughts and modest expectations are easily satisfied. If we don't over-rate our pretensions, all will be *well*.

*Collier.*

What a refreshment then will it be, to look back upon a *wellspent* life !

*Calamy's Sermons.*

Good men have a *well-grounded* hope in another life ; and are as certain of a future recompence as of the being of God.

*Atterbury.*

He examines that *well-meant*, but unfortunate, lye of the conquest of France.

*Arbuthnot.*

'Tis easy for any, when *well*, to give advice to them that are not.

*Wake's Preparation for Death.*

All the world speaks *well* of you.

*Pope.*

Oh ! that I'd died before the *well-fought* wall !

Had some distinguished day renowned my fall,

All Greece had paid my solemn funerals.

*Id.*

What poet would not mourn to see

His brother write as *well* as he ?

*Swift.*

We ought to stand firm in *well-established* principles, and not be tempted to change for every difficulty.

*Watts.*

From his two springs

Pure *well*ing out, he through the lucid lake

Of fair Dambea rolls his infant stream.

*Thomson.*

A *WELL*, in hydraulics, is a hole under ground,



usually of a cylindrical figure, and walled with stone and mortar; its use is to collect the water of the strata around it. In 1794 the Society for the Encouragement of Arts, &c., conferred their silver medal on George Butler, esq., for his invention of a bucket for drawing water from deep wells. It consists of a common barrel, the head of which is taken out; across the top are fixed two thin bars of iron, having in the centre a small piece of the same metal, which Mr. Butler terms a standard. This is furnished with a collar, which has four moveable arms; and above it there are a mortise containing a small brass pulley, and a loop to which the well-rope is secured: further a cord is tied to one extremity of the collar, which, after passing over the pulley, communicates with a valve applied to the lower end of the vessel. The bucket, thus constructed, when let down into the well by a rope, is filled through such valve; and, on being drawn up, the iron cross above-mentioned is pressed against two parallel bars, so that the valve is opened, and the water discharged into a trough, or vessel, prepared for its reception. The chief advantage arising from this contrivance is that the bucket is not only filled expeditiously, but it is also brought up steadily, so that no water is spilt; and, if any of it accidentally drop, it falls directly from the valve into the well without wetting the descending rope, a circumstance of considerable importance; for, by such continual moisture (which is necessarily occasioned by the common buckets), it speedily decays, while the vessels are seldom drawn up completely filled. The following method of procuring good water from wells appears in the *Decade Philosophique*, &c. 'If you wish the water of a well to be clear, and free from any disagreeable taste,' says the writer, 'the excavation should be made considerably larger than is usually done. If, for example, you wish to construct a well five feet in diameter, the excavation ought to be from twelve to fifteen feet. A false well is made ten or twelve feet in diameter; in the middle of this large well the real well is constructed with a diameter of about five feet, but in such a manner that the water may filter through the interstices left between the stones, which form the outside of the inner well: the false well is then filled with sand and pebbles, so that the water must first filter through them before it reaches the real well. By this method you are sure of having filtered water perfectly clear and fit to drink.'

**WELL**, in ships, an apartment formed in the middle of a ship's hold to enclose the pumps, from the bottom to the lower deck. It is used as a barrier to preserve those machines from being damaged by the friction or compression of the materials contained in the hold, and particularly to prevent the entrance of ballast, &c., by which the tubes would presently be choked, and the pumps rendered incapable of service. By means of this inclosure the artificers may likewise more readily descend into the hold, in order to examine the state of the pumps, and repair them as occasion requires.

**WELL-TUBE**, an hydraulic instrument for procuring water, in almost every situation, suggested by M. Cadet de Vaux. He directs the soil to be perforated with a borer; a wooden pipe is then to be placed in the hole, and driven down with a mallet; after which the boring must be continued that a pipe may be driven to a greater depth. As the augur becomes filled with earth it ought to be

drawn up and emptied; so that, by the addition of fresh portions of the pipe, the boring is carried to a considerable extent under ground, and water is in most instances obtained. Wells, thus formed, are preferable to those dug in the usual manner; being less expensive, while the supply of water is both copious and certain. This plan of boring for water has of late been much practised in the neighbourhood of London.

**WELL'ADAY**, *interj.* This is a corruption of waleway. Alas!

O *welladay*, mistress Ford, having an honest man to your husband, to give him such cause of suspicion!

*Shakspeare.*

Ah, *welladay*, I'm shent with baneful smart! *Gay.*

**WELLINGBOROUGH**, an ancient town of England, in Northamptonshire, reckoned the second in the county. It was destroyed by the Danes. It is named from its numerous medicinal wells. It has a market on Wednesday with a great trade in grain, and flourishing manufactures of shoes, lace, &c. The houses are elegantly built with stone, eighty houses having been accidentally burnt in 1738. It has a handsome church and a free school. It is seated on the side of a hill, on the west bank of the Nen; ten miles north-east of Northampton. Long. 0° 59' W., lat. 52° 16' N.

**WELLINGTON**, a market-town and parish in South-Bradford hundred, Salop, situate near the Wrekin, eleven miles east by south from Shrewsbury, and 150 from London. The church is a handsome building, erected of late, and supported with cast-iron pillars, having window frames of iron. Near it is a respectable charity school. The greater part of the inhabitants are engaged in working coals and lime, and mines of iron ore. It has a good market on Thursday.

Also a market-town and parish in West-Kingsbury hundred, Somersetshire, situate on the river Tone, seven miles W. S. W. of Taunton, and 150 from London. This place gives the title of duke to the conqueror of Waterloo.

**WELLS** (Edmund), a learned professor of Greek, in the university of Oxford. He published a good edition of Xenophon's Works, in 5 vols., and died in 1730.

**WELLS** (Edward), D. D., a learned divine, born at Corsham, in Wilts, in 1666, and educated at Westminster, and thence to Christ Church, Oxford. Having graduated there, he obtained the living of Catesbach, in Leicestershire. He published, 1. An Answer to Dr. Clarke on the Trinity; 2. A valuable work on the Geography of the Old and New Testament; 2 vols. 8vo. 3. A Course of Mathematics; 3 vols. 4. Some Tracts against the Dissenters; and other works.

**WELLS**, a post town of York county, Maine, twelve miles N. N. E. of York, thirty south-west of Portland, and eighty-eight N. N. E. of Boston. It is separated from Arundel by the river Kennebunk, at the mouth of which is the village and sea-port of Kennebunk, and it is bounded south-east by that part of the sea called Wells Bay, which lies between capes Porpoise and Neddock. The township is about ten miles long and seven broad. The river Mousum flows through the eastern part of it.

**WELLS**, a city, in Wells-forum hundred, Somersetshire, pleasantly situate on the border of the Mendip-hills, on the small river Westire, nineteen miles south-west of Bath, and 121 west by south

from London. The houses are neat, and many of them elegant, and the streets well paved. The cathedral, the greater part of which, as it now stands, was erected in 1239, by bishop Joceline de Wells, is a spacious gothic structure in the form of a cross, being 380 feet long, and 130 wide. The entire west front is a pile of statues of most excellently carved stone work, and one of the principal windows contains some beautiful paintings on glass. The cloisters adjoining are spacious and elegant, and the chapter-house in the form of a rotunda, is supported by one pillar in the centre. Two gates with towers, lead into the close; one of which leads into the cloisters, consisting of twenty-two houses, and a chapel at the upper end; the vicars' dwellings in the close are commodious, but their hall is turned into a music room, in which concerts are frequently held. The deanery is a handsome edifice. The episcopal palace, though small, is reckoned the handsomest in the kingdom. The pious bishop Ken and his lady were killed here in their bed, by the falling in of the palace during a great storm in 1703.

The church of St. Cuthbert has a lofty square tower containing six bells; that of the cathedral has eight. The town hall is situate over bishop Bubwith's hospital, which is endowed for thirty poor men and women. Here are several alms houses; and a charity school was erected in 1714 for twenty boys and twenty girls. On the east side of the city is a spacious open market place. The name of this city is said to have been taken from a remarkable spring called St. Andrew's Well, rising near and emitting a copious stream, which surrounds the palace, and thence flows through the south-west part of the town. It returns two members to parliament, elected by the mayor, masters, burgesses, and freemen. The chief manufactures are knitting hose, and making bone lace. Near the site of the market cross, stands a public Conduit. The annual races are held in that part called East-Wells, without the city liberty. About two miles north-west of Wells is a remarkable cavern, nearly 600 feet in length, called Wokey-Hole, containing several rugged and lofty apartments. Markets on Wednesday and Saturday.

WELSTED (Leonard), an English poet, born in 1689, and educated at Westminster, where he wrote the humorous tale of the Apple Pye, which has been falsely ascribed to Dr. King. He obtained a place in the Ordnance Office; and Mr. Pope gave him a place unasked and unmerited in his Dunciad; for he was a man of real genius, and several of his poems have great merit. He translated Longinus on the Sublime into English, from Boileau's version; and wrote a comedy, entitled The Dissembled Woman. He died in 1747.

WELT, *n. s.* Sax. *vilan*, to enclose. A border; guard; edging.

Little low hedges made round like *welts*, with some pretty pyramids, I like well. *Bacon.*

They may have some edging or trimming of a scholar, a *welt* or so, but no more. *Ben Jonson.*

WELTER, *v. n.* Sax. *pealtan*; Lat. *volutari*. To roll in water or mire; wallow.

If a man inglut himself with vanity, or *welter* in filthiness like a swine, all learning, all goodness, is soon forgotten. *Ascham.*

He must not float upon his watery bier  
Unwept, nor *welter* to the parching winds. *Milton.*

The gasping head flies off; a purple flood  
Flows from the trunk, that *welters* in the blood.

*Dryden.*

Bellona wades in blood; that mangled body,  
Deformed with wounds and *weltering* in its gore,  
I know it well. *Murphy.*

WELWOOD (James), A. M., a Scottish writer of the seventeenth century, born at Perth in 1599. He wrote Immanuel's Land, and various other pious tracts. He died at Perth in 1680, aged eighty-two.

WELWOOD, or WELLWOOD (Thomas), M. D., an eminent physician and historian, born near Edinburgh, in 1652, and educated at Glasgow. His father, having been suspected of being accessory to the death of archbishop Sharp, fled with his family to Holland; whence young Welwood returned, in 1688, with king William III., who appointed him one of his physicians for Scotland. He settled at Edinburgh, where he made a large fortune. He wrote Memoirs of English Affairs from 1588 to 1688; and died at Edinburgh in 1716.

WEN, *n. s.* Sax. *pen*. A fleshy excrescence or protuberance.

Warts are said to be destroyed by the rubbing them with a green elder stick, and then burying the stick to rot in muck. It would be tried with corns and *wens*, and such other excrescences. *Bacon.*

A promontory *wen*, with grisly grace,  
Stood high upon the handle of his face. *Dryden.*

A WEN is a tumor arising on any part of the body, and containing a cystus or bag filled with some peculiar kind of matter. See NÆVUS.

WENCESLAUS, emperor of Germany, and king of Bohemia, was the son of the emperor Charles IV., whom he succeeded in 1378. Becoming deranged in his mind, the Bohemians confined him, but he escaped once and again; on which occasions he took severe vengeance on all those he supposed his enemies. At length he was deposed, and died in 1419.

WENCH, *n. s.* & *v. n.* Sax. *pencle*. A young woman; used generally in contempt: hence a strumpet: to frequent the company of loose women.

What do I, silly *wench*, know what love hath prepared for me? *Sidney.*

But the rude *wench* her answered nought at all. *Spenser.*

Now—how dost thou look now? Oh ill-starred *wench*!

Pale as thy smock. *Shakspeare.*

Thou wouldst persuade her to a worse offence  
Than that whereof thou didst accuse her *wench*. *Donne.*

They asked the knight whether he was not ashamed to go a *wenching* at his years? *Addison.*

Men have their ambitious fancies,  
And wanton *wenches* read romances. *Prior.*

WEND, *v. n.* Sax. *penan*. To go; pass to or from. Obsolete, but the preterite went is still in use.

WENLOCK, a borough-town of England, in the county of Salop, containing 3481 inhabitants. It is 148 miles from London. Sends two members to parliament; and is celebrated for the remains of its beautiful and once extensive priory.

WENNEL, *n. s.* Corrupted from Weanling. An animal newly taken from the dam.

Pinch never thy *wennels* of water or meat,  
If ever ye hope for to have them good meat. *Tusser.*

WENTWORTH (Thomas) earl of Stafford, an unfortunate English statesman, born of an ancient



family in Yorksnire. Being elected into the house of Commons, he became a distinguished leader of the popular party, in opposition to the measures of king Charles I. in the beginning of his reign. But at last he was gained over to the court party; created a peer by the title of earl of Strafford; and appointed president of the north, and lord lieutenant of Ireland. The earl showed great talents for government in Ireland, where he governed eight years, encouraged agriculture, and labored much to promote the Protestant interest. When the rebellion broke out in Scotland he endeavoured to persuade king Charles to act with vigor, but in vain. The commons, with Pym at their head, impeached the earl at the bar of the house of lords, who ordered him into custody. His trial lasted eighteen days, and was carried on with great virulence. His defence was satisfactory; yet a bill of attainder was passed against him. The king long refused his assent to it, till the earl wrote him to yield, which he did at last with reluctance. The earl was in consequence beheaded on Tower Hill, 12th May, 1641. See ENGLAND.

WENTWORTH (William), marquis of Rockingham, a late celebrated British statesman, born in Yorkshire. He became the leader of the Whig party in the beginning of the reign of George III. When lord North was dismissed, in March 1782 (see ENGLAND), the marquis was appointed first lord of the treasury, but died within four months after.

WERF (Adrian Vander), an eminent Dutch painter, born at Rotterdam in 1689. He painted historical subjects in miniature, in a style of high elegance. He died at Rotterdam in 1727.

WERF (Peter Vander), brother of Adrian, was his pupil, and was also a good painter.

WERNER (Abraham Gottlob), the celebrated mineralogist, was born September 25th, 1750, while his father was overseer of iron works in Upper Lusatia. After some previous education he was sent to the mineralogical academy at Freyburg; and thence to Leipsic, where he applied himself to natural history and jurisprudence, but more especially to the former. The external characters of mineral bodies attracted much of his attention; and in 1774 he published a work on that subject, which has been translated into various languages, and adopted and commented on by many writers; but the author could never be persuaded to publish a new or enlarged edition. Soon after, Werner was invited to become keeper of the cabinet of natural history at Freyburg, and to deliver lectures on mineralogy. In 1780 he published the first part of a translation of Cronstadt's Mineralogy; and in his annotations on this work gave the first sketch of his own system. In 1791 appeared his catalogue of the vast mineral collection of Pabst von Obaine, captain-general of the Saxon mines. He now also delivered lectures on the art of mining, which he is said to have rendered peculiarly intelligible and interesting by his simplification of the machinery. His system of geognosy or geology was unfolded only in his lectures; which he caused to be written out by his approved pupils, revising them himself. Many parts of these lectures have been published. Werner himself likewise published some mineralogical papers in the Miner's Journal; and in 1791 appeared his New Theory of the Formation of Metallic Veins. In 1792 he was nominated counsellor of the mines

of Saxony; and had a great share in the direction of the Academy of Mineralogy, and in the administration for public works. The cabinet of minerals which he had collected was unrivalled for its completeness. This he sold for 40,000 crowns, reserving the interest of 33,000 as an annuity to himself and his sister; and at her death to revert to the Mineralogical Academy of Freyburg. He died unmarried, in August 1817.

WERNIGERODE, a district, with the title of county, in the Prussian states, in Upper Saxony, lying between the principality of Halberstadt and the states of Brunswick and Hanover. Its area is about 100 square miles; its population 13,000. It lies in the Hartz forest.

WERNIGERODE, a town of Prussian Saxony, and the chief place of the above county, stands on a small stream called the Zillicherbach, at the north extremity of the Hartz. It is divided into the Old and New towns, and the suburb of Nessenrode; contains 5100 inhabitants, and has a considerable trade in corn, spirituous liquors, and woollens manufactured in the town. Adjoining is the castle, the residence of the prince. Twenty-five miles S. S. E. of Wolfenbuttel, and twelve W. S. W. of Halberstadt.

WERTHEIM, a county and town of Germany, in Franconia, lying chiefly to the south of the Maine, and subject to the grand duchy of Baden. Its area is about 110 square miles; its population 12,000. It is fertile in corn and wine, the latter being accounted the best in Franconia. The town is the capital of the circle of the Maine and Tauber. It stands in a narrow valley, at the confluence of the Maine and the Tauber, is surrounded with a wall, divided into four quarters, and contains 3200 inhabitants, chiefly Protestants.

WESIL, *n.s.* See WEASAND.

The *wesil*, or windpipe, we call *aspera arteria*. Bacon.

WESLEY (Samuel), an English divine, born in Dorsetshire, and educated at Oxford; but was bred a Dissenter. He afterwards conformed, and wrote some tracts against his former friends. He obtained the living of south Ormesby, and afterwards that of Epworth, both in Lincolnshire. He wrote many sacred poems; but his chief work is *The Life of Christ*, an heroic poem, in twelve books, with learned notes. He also wrote *Dissertations on the Book of Job*, in Latin, folio. He died at Epworth in 1735.

WESLEY (John), the eldest son of the above, was born at Epworth, in the isle of Axholme, in 1703. When he was only six years old the parsonage house at Epworth was burnt to the ground, and he was saved from the flames with the extremest difficulty. In 1713 he was entered a scholar at the Charter House in London, where he continued seven years under the celebrated Dr. Walker, and the rev. Andrew Tooke. Being elected to Lincoln College, Oxford, he became fellow about 1725, took the degree of M. A. in 1726, and was joint tutor with the rev. Dr. Hutchins the rector. Mr. John Wesley, his brother Charles, and a few of their young fellow students, were distinguished by a more than common strictness of religious life. They received the sacrament of the Lord's Supper every week; observed all the fasts of the church; visited the prisons; rose at 4 A. M., and refrained from all amusements. From the exact method in which they disposed of every hour they acquired the appellation of Methodists; by which their fol-



lowers have been ever since distinguished. See METHODISTS. In 1735 he embarked for Georgia, which was at that time in a state of political infancy; and the great object of this voyage was to preach the gospel to the Indian nations in the vicinity of that province. He returned to England in 1737. Of his spiritual labors, both in this country and in America, he himself has given a very copious account, in a series of Journals, printed at different periods. On his return from Georgia he paid a visit to count Zinzendorf, the founder of the sect of Moravians, at Hernuth, in Upper Lusatia. In the following year he appeared again in England, at the head of the Methodists. He preached his first field sermon at Bristol, on the 2d of April, 1738, from which time his disciples have continued to increase. In 1741 a serious altercation took place between him and Mr. Whitfield. In 1744, attempting to preach at an inn at Taunton, he was regularly silenced by the magistrates. Although he chiefly resided for the remainder of his life in the metropolis, he occasionally travelled through every part of Great Britain and Ireland, establishing congregations in each kingdom. In 1750 he married a lady, from whom he was afterwards separated. By this lady, who died in 1781, he had no children. He died on the 2d March, 1791, in the eighty-eighth year of his age.

WESLEY (Charles), younger brother of John, was born at Epworth in 1708, and educated at Westminster, and next at Christ Church College, Oxford. He adopted his brother John's system and sentiments; and continued a constant preacher among the Methodists till his death in 1788. He wrote several hymns, and other pious pieces.

WESLEY (Samuel), another brother of John, was under master of Westminster School for many years; and afterwards master of Blundel's School at Tiverton, in Devonshire, where he died in 1739. He published *The Battle of the Sexes*, and other ingenious poems, in 1 vol. 12mo.

WESSELUS (John), a learned German, born at Groningen, about 1419. He studied at Zwoll, and travelled afterwards into Greece and the Levant. Some of his works were printed at Groningen 1614, 4to., under this title: *Farrago Ferum Theologicarum*.

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|--------------------------|---|
| WEST, <i>n. s.</i>       | } Sax. <i>perit</i> ; Belg. <i>west</i> .<br>The region where the sun goes below the horizon at the equinoxes: westering is tending to the west: westerly, towards the west: the other derivatives corresponding. |
| WEST'ERING, <i>adj.</i>  |   |
| WEST'ERLY, <i>adv.</i>   |   |
| WEST'ERN, <i>adj.</i>    |   |
| WEST'WARD,               |   |
| WEST'WARDLY, <i>adv.</i> | west: westerly, towards the west: the other derivatives corresponding.  |

This shall be your *west* border. *Numb. xxxiv. 6.*

Now fair Phœbus 'gan decline in haste  
His weary waggon to the *western* vale. *Spenser.*

The *west* yet glimmers with some streaks of day:

Now spurs the lated traveller apace,  
To gain the timely inn, *Shakespeare.*

The grove of sycamore,  
That *westward* rooteth from the city side. *Id.*

If our loves faint, and *westwardly* decline,  
To me thou falsely thine,

And I to thee mine actions shall disguise. *Donne.*

The Phenicians had great fleets; so had the Carthaginians, which is yet farther west. *Bacon.*

By water they found the sea *westward* from Peru, which is always very calm. *Abbot.*

The star that rose at evening bright  
Toward heaven's descent had sloped his *westering* wheel. *Milton.*

The moon in levelled *west* was set. *Id.*

These bills give us a view of the most *easterly*, southerly, and *westerly* parts of England. *Graunt.*

When *westward* like the sun you took your way,  
And from benighted Britain bore the day. *Dryden.*

The *western* part is a continued rock. *Addison.*

All bright Phœbus views in early morn,  
Or when his evening beams the *west* adorn. *Pope.*

WEST (Gilbert), LL.D., the son of Dr. West, was born in 1706, and at twelve years of age lost his father. He studied at Winchester and Eton Schools, and went thence to Christ Church College, Oxford. He was appointed treasurer to Chelsea Hospital, and obtained a seat at the council board. He wrote a *Vindication of the truth of our Saviour's Resurrection*, and published translations of *Pindar*. He died at fifty years of age.

WEST (Richard), esq., an eminent English lawyer, and a barrister in the Temple. In 1717 he became king's council; and in 1725 was made lord chancellor of Ireland, but died in 1726. He married a daughter of the famous bishop Burnet. He wrote, 1. A Discourse concerning Treasons, and Bills of Attainder; 2. A Treatise on the Manner of Creating Peers.

WEST (Thomas), an eminent topographer, born at Ulverston, in Lancashire. He wrote, 1. *The History of Furness*; 2. *A Guide to the Lakes*. He died at Ulverston in 1779.

WEST (Benjamin), a distinguished modern painter, born in 1738, near Springfield, in the state of Pennsylvania. His parents were quakers, but, perceiving in their son a propensity for the art of drawing, they had the good sense to allow him to cultivate his talent. After receiving proper instruction, he exercised the profession of a portrait painter in the United States, and then, with a view to improvement, undertook a voyage to Italy, Florence, Leghorn, Bologna, Venice, and Rome: passing through Savoy into France, he remained some time at Paris. In 1763 he arrived in England, where he met with such encouragement that he took up his residence here. One of his first patrons was Dr. Drummond, archbishop of York, who introduced the young artist to his late majesty; and by order of the king he executed his picture of *The Departure of Regulus from Rome*. On the foundation of the Royal Academy of Painting, in 1768, he became a member; and in 1791 succeeded to the office of president. Among his early productions, that which attracted most notice was *The Death of General Wolfe*. After the treaty of Amiens, Mr. West again visited Paris, for the purpose of taking a survey of the galleries of the Louvre, and experienced from the French artists and government a reception alike honorable to all parties. The British institution now presented him with 3000 guineas for a painting of *Christ healing the Sick*; and an exhibition of some of his works was productive of great profit. One of his latest works was *Death on the pale Horse*, from the Revelation. In 1817 he lost his wife, an American lady, to whom he had been united more than half a century. He died March 18th, 1820, at his residence in Newman Street; and was splendidly interred in St. Paul's cathedral.

WESTERN ISLES, or *Ebudæ*, or Hebrides, islands on the west and north-west coast of Scotland. See *HEBRIDES*, and the names of the various islands in their order. Mr. Pennant very judiciously supposes that the modern name, Hebrides, has arisen from the mistake of some transcriber, instead of Hebudæ.



**WESTFIELD**, a post town of Hampden county, Massachusetts, seven miles west of Springfield, ninety-three W. S. W. of Boston. This is a peasant and excellent agricultural town, and has a handsome village, containing a Congregational meeting-house, a respectable and flourishing academy, and some manufactures.

**WESTMEATH**, a county of Ireland, situated in the province of Leinster. It is bounded on the north by the county of Cavan, on the east by Meath county, on the west by the county of Longford and by an expansion of the river Shannon called Lough Ree, and the King's county lies to its south. The length of this shire is forty-two English miles, and its maximum breadth thirty-five; its area contains 231,538 Irish plantation acres, on which reside a population of 130,000 souls. There are eleven whole and one half baronies in Westmeath; they are Brawney, Clonlunan, Corkaree, Delvin, Farbill, Fartullagh, Kilkenny West, Moyashel, Moycashel, Moygoish, Rathcomath, and Half Fore. These again are ecclesiastically divided into fifty-nine parishes and seven parts of others. The chief towns are Mullingar, a place of ancient establishment seated in the centre of the county, and where the assizes are held; part of the borough town of Athlone, besides Clonmellon, Castletown Delvin, Castlepollard, Kinnegad, Kilbeggan, Street, Rathowen, Ballymore, and Moyvore. The great river Shannon bounds the western part of the county, the Inny waters a part of the north, and the Royal Canal passes through the very centre; and, in addition to these advantages of inland navigation, the surface of the county generally is beautified, diversified, and irrigated, by many agreeable lakes which are adorned with islands and with wooded shores. Of these the principal are Lough Sillin, Derryvarragh, Leign, Iron, Ennell, Drin, and Banean Annagh. Westmeath is one of the least mountainous shires in Ireland, but is much encumbered by unreclaimed bogs. The Royal Canal navigation affords an easy transport for the great quantity of turf-fuel cut and saved here, as well as for their wool, which is the staple of the district round Mullingar. There were formerly many religious houses for monks of different orders established here, the most remarkable of which were the abbey of Fore, founded by St. Fechin about the year 630: having governed 3000 monks in this abbey he died of the plague in 665. His festival is still religiously observed on the 20th day of January. The ruins are still extensive. The priory and friaries at Mullingar were also famous; but the history of the monks of Multifernan is peculiarly singular:—After the suppression of monasteries, these friars had sufficient address to keep quiet and unobserved possession of their establishment, and grew, in a short time, into such wealth and power that, in 1622, they attempted to re-erect the priory of Mullingar. In this they were frustrated; but still retaining possession of Multifernan it is asserted that within their religious walls the rebellion of 1641 was first concocted and contrived. Westmeath retains scarcely one of its aboriginal great families; at present it gives title of marquis to the family of Nugent, and returns three members to the imperial parliament. This county was represented in the Irish parliament by ten members, two for the county and eight for the manor of Mullingar and the three boroughs.

**WESTMINSTER**, a part of the metropolis of London, is a celebrated city in the county of Mid-

dlesex, on the bank of the Thames, and supposed to be named from its minster or abbey, lying westward of St. Paul's. In ancient times it contained nothing remarkable, except the stately abbey, situate in a marshy island, called Thorney, surrounded on one side by the Thames, and on the other by a branch of the river called Long Ditch. For many ages it was entirely distinct from London, and the Strand was a road leading thereto, open on one side to the Thames, and on the other to fields. It is still governed by its own magistrates and laws, distinct from those of London. It contains nine parishes; viz. St. John's, St. Margaret's (which two alone, strictly speaking, constitute the city of Westminster), St. Ann's, Soho; St. Clement's Danes; St. George's, Hanover Square; St. James's; St. Margaret's; St. Martin's-in-the-fields; St. Mary-le-Strand; and St. Paul's, Covent Garden. Independent of the church establishment, the city contains places of worship for every sect of religionists. The greatest recent improvement in Westminster is the erection of a long, wide, and elegant street, or rather a succession of streets, from Carlton Palace on the south, to Portland Place on the north, in the line of which are the noble piles of Waterloo Place, the Regent's Quadrant, Regent's Street, and the Regent's Circus. The government of this city and its liberties is under the jurisdiction of the dean and chapter, in civil as well as ecclesiastical affairs, and their authority extends to the precincts of St. Martin's-le-grand, near Newgate Street, and to some places in Essex, that are exempt from the jurisdiction of the bishop of London and the archbishop of Canterbury; but the civil part, ever since the Reformation, has been in the hands of laymen, elected and confirmed by the dean and chapter. The principal magistrates are the high steward, usually a nobleman and chosen for life; a deputy steward, chosen by the high steward; and a high bailiff, nominated by the dean, and confirmed by the high steward: there are also sixteen burgesses and a high constable. Westminster returns two members to the imperial parliament, chosen by the householders. The numerous public buildings, churches, squares, and charitable establishments for the education and maintenance of youth, and the consolation of age, for the relief of disease and accidental calamity, are too extensive to admit of particular description; but we cannot forbear selecting a few historical and topographical notices of the ancient palaces, Westminster Hall, and the abbey.

*Ancient palaces of Westminster.*—Canute is known to have occupied a house or palace in Westminster, which was burnt down in the time of Edward the Confessor; but it is by no means certain that it was situated on the same spot where the latter monarch built the palace, some remains of which are still to be seen in the neighbourhood of Old Palace Yard, particularly the lancet windows in the painted chamber adjoining the house of lords. William I., who was crowned here, enlarged the palace considerably to the northward, and his son William Rufus built Westminster hall as a banqueting-room. The palace at Westminster, like many of the ancient buildings of the metropolis, however, fell by conflagration. Twice had it been materially injured by fire, in the years 1263 and 1299, but the injury done both these times was repaired; not so the fire that took place in this building in 1512, which was so destructive that it was not deemed advisable to rebuild the edifice.



The next royal residence in Westminster was Whitehall palace, originally built by Hubert de Burgh, earl of Kent, justiciary of England in the reign of Henry III. Hubert bequeathed the mansion to the Black Friars, who sold it to the archbishop of York, and it continued the residence of the prelates of that see until the reign of Henry VIII., when cardinal Wolsey, who had lived in York house (for so it was called), with super-regal pomp, presented it, with all its costly furniture, as a peace offering to his rapacious master. Hentzner asserts that it was 'a truly royal structure ;' a gate of singular elegance in the Gothic style of architecture, a tennis-court, cockpit, tilting yard, and bowling green, with a gallery whence the sports in these places might be viewed, were among the buildings raised by Henry VIII. His daughter, queen Elizabeth, made many additions, particularly the banquetting-room, and a jet d'eau in the gardens, which often afforded amusement to the court by its liberally sprinkling the idle gazers who approached it. Hollinshed appropriates six folio pages to an account of a ridiculous pageant in honor of her majesty, in 1581, when the duke of Anjou sent commissioners to propose his marriage with the queen, and the gallery erected by her father, 'whereat her person should be placed,' and it appears was placed (called, 'the castell or fortresse of perfect beautie') ; was assailed by 'desire and his four foster children.'

Whitehall having become ruinous in the reign of James I., Inigo Jones was ordered to furnish a plan of an entirely new palace on a large scale, but the banquetting-house, on the site of that built by Elizabeth, was the only part of his plan which was carried into effect, a circumstance the more to be regretted, as the design appears to have been admirable, and the part executed furnishes a proof of the great talents of the architect. This house, now the chapel royal, to which purpose it was appropriated by George I., is a fine building with a rustic base, and the upper stories of the Ionic and Corinthian orders. The ceiling of the chapel, which is an apotheosis of James I., was painted by Rubens, who was rewarded with a sum of £3000 for his labor, and Cipriani had afterwards £2000 for retouching it. This is certainly a fine painting, but very inappropriate for a place of worship. The ill-fated Charles I. was decapitated on a scaffold erected in front of this banquetting house, on the 30th of January, 1649, on the spot to which the fine statue of James II., by Grinlin Gibbons, is said to point. Although Whitehall has long ceased to be a royal residence, the principal part of the palace having been destroyed by fire on the 4th of January, 1697, yet many public documents and state papers are still dated 'Whitehall.'

*St. James's.*—The stranger, who visits London and sees the splendid mansions of our nobility and merchants, and the extent and grandeur of our public buildings appropriated to works of charity and benevolence, generally feels disappointed with the apparently mean and incongruous appearance of the royal palaces, particularly St. James's ; and, indeed, the genius of bad taste seems to have presided over the former for two centuries at least. The exterior was formerly of the mixed style of Gothic architecture which characterised the age of Henry VIII., and it was indebted to Charles I. for some improvement ; but every subsequent external alteration has injured its original character, if we

except the opening, defended by a pair of lofty iron gates, that has been made at the east end of the palace, from Pall-Mall into the park. But, however deficient St. James's palace may be in its exterior, it is universally allowed to be the best adapted for regal parade of any in Europe. It is built on the site of an hospital for lepers, which was erected here, before the conquest, by some pious citizens of London, and dedicated to St. James ; the hospital was continued until the reign of Henry VIII., who seized upon its revenues, pensioned a few persons who were on the establishment, razed the house, and built the present edifice according to a design, it is said, of his then favorite, Thomas Cromwell, earl of Essex. The king only intended it for a private residence, and it was called the King's Manor House. His daughter queen Mary resided here during the last two years of her reign, and terminated her inglorious life within its walls. That hopeful youth prince Henry, son of James I., also died in St. James's palace, after having made many improvements in the interior. It appears to have received successive decorations, as le Sieur de la Serre, who accompanied Mary de Medicis, queen of Henry IV., and mother of Henriette Marie, on a visit to the English court in 1638, describes it as very magnificent and extremely convenient. Charles I. enriched the palace with many valuable works of art, and employed an agent in Italy to collect them. This collection was scattered by the republican parliament, and sold for the sum of £12,049 4s. Some of the pictures, however, obtained a good price, particularly *The Flaying of a Satyr*, and another piece on the same subject, both by Correggio, which were sold for £1000 each ; but it is very characteristic of the strong republican feeling that pervaded the times, that a portrait of queen Elizabeth, in her parliamentary robes, was sold for £1 ; king Charles I., when a youth, for £2 ; and a portrait of his queen produced no more than 5s. ! Cromwell had the good taste to secure some of these treasures honorably ; he gave £300 for the *Cartoons of Raphael*, and £30,000 for the rich tapestry (manufactured principally at Mortlake) which belonged to St. James's palace, Hampton Court, and Whitehall.

St. James's was for some time the prison of Charles I., and here his body was brought after his execution, and exhibited for some days to the public. Cromwell is said to have been one of the visitors : muffled up in a cloak, and otherwise disguised, he walked round the corpse, and exclaiming 'dreadful necessity !' withdrew. James II., William III., queen Anne, and George I., all resided in this palace, where many royal births and baptisms have since taken place, and many a nuptial ceremony has been celebrated in the chapel royal.

His present most gracious majesty, George IV., was born in St. James's palace. Such was the domestic condescension of their majesties, George III. and his illustrious consort, that before their first born was twelve days old the public were admitted to see him, when they flocked in such numbers, that the expense in cake and caudle (which was presented to all visitors) was upwards of £40 a day ! The most picturesque part of this ancient palace fell a prey to the flames on the night of the 21st of January, 1809, when the whole south-east angle, including the private apartments of their majesties, some of the state rooms, toge-



ther with the Dutch and French chapels, were destroyed.

*Carlton house*, in Pall Mall, rose in the course of less than a century, from a plain mansion to be the principal town residence of the king of Great Britain. It came into possession of his present majesty's grandfather, Frederick prince of Wales, in 1732. A beautiful saloon, paved with Italian marble, and an elegant bath, were constructed in the garden, which was ornamented with statues. During the residence of the prince of Wales at Carlton House, it was the scene of those party intrigues, which have so often been employed to preserve what is called the balance of the state, by placing the sovereign and the heir apparent in political array against each other. On his death, on the 5th of March, 1757, the princess, his royal widow, continued to live at Carlton House, where she died on the 8th of February, 1772. From this period until the year 1783, the place was unoccupied, and rapidly sinking into ruin, when, his present majesty coming of age, it was deemed necessary that his royal highness should have a separate establishment, and Carlton House was repaired, or rather rebuilt (for little of the old structure was suffered to remain), under the direction of Mr. Holland. Here his present majesty long resided when in town, whether as prince of Wales, prince regent, or sovereign, and numerous splendid fêtes were given at this palace: the most remarkable perhaps, and the only experiment ever made at any court of Europe to give a supper to 2000 of the principal nobility, and gentry, was that on the 19th of June, 1811. This fête originated in the desire of his royal highness to show every respect and filial affection to his father's birth-day, it not having been convenient to hold a drawing room on its anniversary: and with a due regard to our internal commerce, the invitation cards expressed a strong desire that every person should appear dressed in articles of British manufacture only. The fête was attended by Louis XVIII. and the French princes then in exile. But Carlton house has at last also fallen before the genius of improvement, and we need not therefore dwell on what it was.

We are as little disposed to dwell on what Buckingham house is; suffice it here to say, after having been long the queen's house, and the scene of much of the domestic felicity of George III. and his consort, it has been selected for improvement by the purveyors for royal comfort in the court of his majesty George IV., and is not yet (1829) completed to their taste.

*Westminster Hall*.—Westminster Hall is one of the most venerable remains of our ancient English architecture, and it has been associated with the most splendid pageants of royalty, for upwards of seven centuries. It has already been stated that Westminster Hall was built by William Rufus for a banquetting-room, as an appendage to the palace; and, although it is now the largest room in Europe, unsupported by pillars, yet this monarch is said to have called it a mere bed-room in comparison of what he would build. It is, however, to Richard II. that we are indebted for the present noble structure; and it has recently been discovered, that Rufus's hall was divided by pillars of stone or wood. It is doubtful whether the dimensions were the same, although we find Henry III. feasting 6000 persons in this hall, and some other rooms of his palace, in honor of the coronation of his queen

Eleanor. A more extensive banquet is stated to have been given by the same monarch in 1243.

Richard II. caused the old hall to be taken down, and raised the present edifice in the year 1397; and, two years after, he gave a 'house warming' in this hall, when, if we are to rely on Stowe, he feasted 10,000 persons. Westminster Hall has, from the most remote period, been the place where the coronation banquets have been held. It was formerly the custom for the sovereign to proceed from the tower on the previous evening, and sleep in Westminster; and his majesty, George IV., on the evening of his coronation, slept in the house of the speaker of the house of commons, adjoining the hall. On the morning his majesty proceeded to the hall, and, having taken his seat on the throne, gave the regalia to the individuals who had been previously declared, in the court of claims, entitled to the honor of bearing it. The procession was formed in the hall, whence it proceeded in great state along a covered platform to Westminster Abbey, where the coronation ceremony took place. When this was over, his majesty, surrounded by the nobility, knights of the several orders, and gentlemen, all clothed in splendid robes, returned to Westminster Hall, where a dinner of every luxury that could be procured had been provided in the utmost abundance.

Westminster Hall is universally allowed to be the largest room in Europe unsupported by pillars, being in length 270 feet, ninety feet high, and seventy-four feet broad. The roof of this venerable building is a fine specimen of the carpentry of the middle ages, and for strength and durability could not be excelled at the present day. Parliaments have formerly been held in this hall, and here trials before the peers take place.

When the republican government of Cromwell had been succeeded by the restored monarchy, the grave could not shelter some of the most prominent personages of the commonwealth; and in January 1661, the bodies of Oliver Cromwell, his son-in-law Henry Ireton, lord deputy of Ireland, and John Bradshaw, who presided on the trial of Charles I., were, pursuant to a vote of the house of commons of the 8th of December preceding, taken out of their graves, conveyed upon sledges to Tyburn, and the bodies handed 'at the three several angles of the gallows until sunset.' They were then beheaded, the trunks thrown into a deep pit under the gallows, and the heads set upon poles on the top of Westminster Hall. Tradition relates that on a stormy night, in the latter end of the reign of Charles II., or James II., the head of Cromwell was blown off the top of the pole, and afterwards presented to the Russell family.

The hall in which the second branch of the state, the *house of lords*, assembles, is a part of the ancient palace of Westminster, and is rather to be admired for its venerable antiquity than for its elegance. It is an oblong room of somewhat limited dimensions, hung round with tapestry, representing that memorable event in English history, the destruction of the Spanish Armada, which was presented by the states of Holland to queen Elizabeth; portraits of the heroes who shared in the destruction of that haughty and dreadful armament form a matchless border round the room. At the upper end is the throne, rich in gilding, but somewhat tasteless in its decoration. Some improvement has been made in the approaches to the house



of lords, under the direction of Mr. Soane, consisting of a noble staircase and magnificent gallery, 100 feet long and twenty-seven feet wide. The gallery is divided into three parts by columns, in imitation of veined marble, of the Ionic order. There is somewhat of a profusion of ornament in the decorative part of this gallery, but it presents a noble vista, and the dome and arches are novel, though rather too full of ornament.

Adjoining the house of lords is a room where conferences between the peers and the commons are held, called the painted chamber, which is known to be as old as the time of Edward the Confessor, who is said by Howel to have died in it. It was in this chamber that the fatal warrant for the execution of Charles I. was signed; and here also was held that important conference between the lords and commons which led to the revolution of 1688, and rescued the country from the fangs of an arbitrary and bigoted monarch. The painted chamber is so called on account of the paintings on its walls, which are of great antiquity; and, although their age is not known, it is certain they are as old as the year 1322, and probably much older.

The dreadful plot of Guy Fawkes and his associates, to exterminate kings, lords, and commons, at 'one fell swoop,' in the reign of James I., is well known, since the anniversary is not only a fast in the calendar, but, previous to every parliament, the cellars underneath the house of lords, where the conspirators had planted thirty-six barrels of gunpowder for the meditated explosion, are searched.

The house in which the commons of Great Britain assemble is called St. Stephen's Chapel, and is a part of the ancient palace, generally supposed to have been built by king Stephen as a chapel for the palace, and dedicated to his namesake. Edward I. repaired it at considerable expense, but it was entirely rebuilt by Edward III., who made it a collegiate church with a regular endowment, which it had not previously possessed. Soon after its dissolution, in the reign of Edward VI., it was converted into a parliament-house, where the commons of England have ever since held their sittings. In the reign of queen Anne, the galleries were added under the direction of Sir Christopher Wren. It was then customary to cover the walls with tapestry, which were renewed every new parliament, the housekeeper claiming on such occasions the old hangings. Since that period, to the year 1800, little appears to have been done to the house but when the 100 Irish members were to be added, in consequence of the union, it was found too small, and the original side walls, which were three feet thick, were taken down, and others built, only one foot thick, which enlarged the house four feet. On removing the wainscoting, it was discovered that the walls had originally been painted with historical subjects and single figures, engravings of which were soon afterwards made. St. Stephen's Chapel and the house of lords (as here described) were burned down Oct. 16, 1834.

*Westminster Abbey.*—It has been very satisfactorily proved that Westminster Abbey owes its origin to Sebert king of the East Saxons; and that it was founded about the year 604. If, however, we could rely on dreams, and particularly on those of monks, we might quote the authority of Wulsinus, that the apostle St. Peter himself had a chapel or oratory on the site of this magnificent pile. The vision of Wulsinus was turned to some advantage

by the succeeding monks, who added a new legend of St. Peter's crossing the water one stormy night, to consecrate the church, and rewarding the fishermen who ferried him over Thorney (water which surrounded the church, the site of which was called Thorney Island), with a miraculous draught of salmon, assuring him and his fellow watermen that they should never want fish, provided they would give one-tenth of what they caught to the newly consecrated church! It will not excite much surprise that the tale was believed, and that for several centuries the monks of Westminster fed on the offerings of the Thames fishermen. In the year 1231 the monks brought an action at law against the minister of Rotherhithe, in which they compelled him to give up to them one-half of the tithe of all salmon caught in his parish.

From the foundation of the abbey, to the time of Edward the Confessor, its history is obscure; but this prince, in consequence of an injunction from Leo IX., who had absolved him from a rash vow, appropriated one-tenth of his property, in 'gold, silver, cattle, and all other possessions,' to the rebuilding of the abbey. It was commenced in 1050, and finished fifteen years afterwards. Among its relics, the monkish writers assure us, were part of the manger in which Christ was born, the frankincense offered to him by the Eastern magi, a splinter of the table of our Lord, a crust of the bread that he blessed, a slab of the wall of the prison in which he was confined, a shred of his undivided garment, fragments of the sponge dipped in hyssop which he sucked, the scourge with which he was tortured, and the lance by which the side of the Saviour of mankind was pierced! The legends assure us also that Edward presented to this church a portion of the milk and hair of the Virgin Mary, relics of most of the apostles, including the beard of St. Peter, with half a jaw and three teeth of St. Anastasia.

In the year 1220 Henry III. laid the first stone of a new chapel, in honor of the Virgin Mary, on the site now occupied by Henry VII.'s chapel; but little was done to the building until the year 1245, when it was more actively prosecuted, and that with a prodigality of expense which at the period was unparalleled. Between the years 1245 and 1261 the expense incurred in this portion of the abbey amounted to £29,605 19s. 8d. The church was opened for service in 1269.

When the chapel had been completed, Henry III. resolved that the remains of the Confessor should be removed into the new shrine; and 'in the sight of all the principal nobility and gentry of the land, who were assembled here, he, and his brother Richard, carried the chest containing St. Edward's remains, upon their shoulders, to the new shrine, wherein it was deposited with vast ceremony. On seeing it exalted, the devils, says Matthew of Westminster, were instantly cast out of two possessed persons who had come purposely (the one from Ireland, the other from Winchester), to receive that benefit.' The anniversary of St. Edward's translation was long observed by the corporation and principal citizens.

During the reign of Henry III. and Edward I. the eastern part of the nave and the aisles were rebuilt, and finished in 1307. To Edward II., Edward III., and Richard II., we are indebted for the Great Cloisters, Abbot's House, and the principal monastic buildings. The western parts of



the nave and aisles were rebuilt by successive monarchs, between the years 1340 and 1483. The west front and the great window were built by those rival princes, Richard III. and Henry VII.; and it was the latter monarch who commenced the magnificent chapel which bears his name, and which was finished by his son and successor. The first stone was laid on the 24th of January 1502-3, by the abbot Islip; and, although the king did not live to see the work finished, yet, after amply endowing the abbey, he gave Islip £5000 towards completing it, only a few days before his decease. Although Henry VIII. finished the chapel, yet he did not spare the abbey from the general dissolution of the monasteries, nor could an existence of upwards of nine centuries successfully plead in its behalf.—The monarch, however, while he seized on its revenues, which were nearly £4000 a year, raised it to the dignity of a cathedral, by royal letters patent, and endowed it with a revenue of £586 13s. 1d. Queen Mary restored its monastic privileges; but, in 1556, Elizabeth finally established it as a collegiate church. Sir Robert Harlow, the bigot, who in the civil wars was employed to demolish the venerable cross at Cheapside, broke into Henry VII.'s chapel, demolished the altar stone, and committed other outrages; and it appears, by a statement in the *Mercurius Rusticus* of 1646, that in July 1643 the abbey was converted into barracks for the soldiers.

During the reigns of George I. and George II. the great west window was rebuilt, and the western towers completed; but it is to their immediate successors that Westminster Abbey is most indebted, in the restoration of the exterior of Henry VII.'s chapel to its original beauty, after it had become so much dilapidated. This work was commenced in 1809, under the direction of Mr. James Wyatt, and has been completed at an expense of about £42,000.

On entering the great western door, the body of the church presents an impressive appearance, to which its loftiness, lightness, symmetry, and elegance contribute, although the view is somewhat disfigured by the monuments, which are neither good in themselves, nor tastefully arranged. The church consists of a nave and two side aisles, separated by ranges of lofty columns supporting the roof, which is raised to a great elevation. The nave is separated from the choir by a screen; the choir, in the form of a semioctagon, was formerly surrounded by eight chapels, but there are now only seven,—that which was formerly the central chapel now forms the porch of that of Henry VII. The choir, the only part that can be seen gratuitously, and that only during the hours of divine service (celebrated every day at ten o'clock in the morning, and three o'clock in the afternoon), is celebrated for its beautiful mosaic pavement, venerable in its age, costly in its materials, and of almost inimitable workmanship. This pavement, made at the expense of abbot Ware, and named after him, is formed of innumerable pieces of jasper, alabaster, porphyry, lapis-lazuli, serpentine marbles, and touch-stone; these pieces, which vary in size from half an inch to four inches, are arranged in the most varied and beautiful forms, and present a platform of singular beauty. On the 9th of July, 1803, the roof of the choir was much injured by a fire, which threatened the entire destruction of this magnificent structure.

The chapel of Henry VII. is a magnificent specimen of ecclesiastical architecture. It is nearly square; the east end forming five sides of an octagon. When viewed exteriorly it presents a light and airy structure, and the interior is of singular beauty and symmetry, though much disfigured by the stalls and flags of the knights of the bath. Within is the tomb of its founder, enclosed by a screen of gilt brass, said to have been executed by Torrigiano, the rival of Michael Angelo. Here also are entombed the ill-fated Mary queen of Scots, and her vindictive persecutor queen Elizabeth, who sent her to the block.

Edward the Confessor's chapel, situated at the east end of the choir, contains several royal tombs, as well as the celebrated coronation chair, which contains the still more celebrated stone, monkish tradition relates to have been Jacob's pillar. This stone is placed within the frame work of the chair, and was brought from Scone, in Scotland, in 1267, by Edward I. It is a remarkable instance of the force of superstition, that this stone has been the subject of an express article in a treaty of peace, as well as of a conference between Edward III. and David II., king of Scotland. By the treaty it was agreed to give the stone up to Scotland, and in the conference it was resolved that the king, after being crowned in England, should repair to Scotland and be crowned king at Scone; but neither of these resolutions were carried into effect.

The chapels of St. Andrew, St. Benedict, St. Erasmus, St. John, St. Michael, and Henry V., all contain the tombs of some distinguished person, as does the Poet's Corner; but, although monuments to the memory of many illustrious characters are to be found in various parts of Westminster Abbey, yet there are others who have scarcely any claim to such a distinction. Except the sovereigns, down to those of the house of Stuart, we look in vain for the tombs of the great men who have adorned the annals of our history. In the Poet's Corner, the statue of Shakspeare, and that of his great exemplifier, David Garrick, will attract attention; but the greatest of modern dramatists, Richard Brinsley Sheridan, may escape notice, unless the visitor is pointed out to the only memorial of him, a black marble slab which covers his remains. The names of Chaucer, Spenser, Ben Jonson, Milton, Butler, Prior, Addison, Dryden, Goldsmith, and several other distinguished authors and artists, have also a memorial in the Poet's Corner; and in other parts of the abbey are numerous monuments to modern statesmen, senators, and lawyers; including one to Charles James Fox, by Westmacott, and another to the memory of Mr. Percival, whose assassination is represented in basso relievo. To describe all the monuments is impossible, and even to enumerate their names would but furnish a dull catalogue.

From the time of William I., to that of his majesty George IV., Westminster Abbey has been the place where the august and religious ceremony of crowning the kings of England has taken place, on which occasions it has been customary to fit up the interior.

The government of the abbey church of St. Peter's is intimately connected with that of the city of Westminster itself; although, since the reformation, the civil authority has been in the hands of the laity, yet the right of nominating the chief officers is still exercised by the dean and chapter: they appoint the high steward, and the high bailiff,



who is the returning officer at the election of the two representatives which the city sends to parliament; and several subordinate officers cannot enter on their duties until confirmed by the dean and chapter.

From the south aisle of the abbey, there are two entrances into the cloisters, which are entire, and consist of four arched walks, on the sides of an open quadrangle. The walls are nearly covered with small monuments, and the ground with tombstones. The chapter house, which was built in 1220, is on the east side of the cloisters, and is entered through a magnificent Gothic portal. In 1377 the commons of England held their sittings here, and continued to do so until the reign of Edward VI. The chapter house is now used as a depository for the public records, where the celebrated domesday book, and the records of the court of star chamber, are preserved. The Jerusalem chamber, near the abbey, is memorable for its being the place where Henry IV. died. To the north of the abbey stood the ancient sanctuary, where even royalty itself has sought a refuge, though in vain; and westward of the sanctuary was the almonry.

Westminster should also be noticed as containing the principal theatres of the metropolis. The king's theatre, or opera house, in the Haymarket, was originally built by Sir John Vanbrugh, between 1703 and 1706. Many alterations were afterwards made at different periods; but on the 17th of June, 1789, the whole building was nearly destroyed. It was rebuilt in the following year, from the designs of signior Novosielski. The exterior was altered in 1820, to correspond with the new improvements in Pall Mall. In the Haymarket a handsome new theatre was erected in the year 1821, from designs by John Nash, esq. Its front has a portico, with six pillars of the Corinthian order. In the Strand is the Adelphi theatre, formerly the Sans Pareil, where dramas are enacted in a style little inferior to the performances at the theatres royal. The English opera house, or lyceum, is also in the Strand, and was first opened in the year 1808, by Mr. Arnold. It has since been rebuilt, and fitted up in a splendid style. The saloon is contrived to represent a 'Mameluke pavilion, and Egyptian panorama,' which consists of a sumptuous tent, with a fountain in the centre (beneath a dome), playing into a shell, amidst a profusion of gas lights. The paintings which decorate the sides of the saloon are taken from Egyptian drawings, in the possession of Sir Robert Ainslie. Drury Lane theatre was erected from the designs of Benjamin Wyatt, esq., in 1811, and the following year; the old edifice having been destroyed by fire, on the 24th of February 1809, which consumed the whole building in the space of five hours. The exterior has a heavy, though substantial appearance. This building is calculated to contain sitting room for about 2800 persons. Covent Garden theatre was likewise destroyed by fire on the morning of the 28th of September 1808. The present extensive edifice was designed by Robert Smirke, esq., jun., R. A., and built within ten months from the laying of the foundations. The portico was designed from the Doric temple of Minerva, in the Acropolis, at Athens. The interior is excellently adapted for display; the decorations are of the most elegant description; and it is capable of affording

accommodation for 3000 persons. The Olympic Pavilion, in Wych Street, was erected by the late Mr. Astley, in 1806, and the performances are of a similar nature to those of the Adelphi and other minor theatres.

An establishment of a peculiar character has also lately been raised in this city, on the banks of the Thames, the Penitentiary for the confinement, employment, and reformation of offenders of secondary criminality. The culprits are incarcerated in circular buildings, so constructed that the overseers may, from a central situation, unseen, observe every room. When completed, the edifice will form externally a hexagon, consisting of six of these circular divisions. The building is encompassed with a wall, enclosing eighteen acres of ground, and is calculated to be large enough to contain from 1000 to 1200 prisoners. Some are already placed there; and the beneficial effects of the institution on their general conduct has already been very perceptible. In Tothill Fields is a bridewell, for the detention and temporary punishment of petty offenders, under the charge of the magistrates of the city and liberties.

The charitable establishments of Westminster for the education and maintenance of youth, and the consolation of age; for the relief of disease and accidental calamity, are both numerous. The Middlesex and the St. George's hospitals (not, however, properly within the town), the Westminster infirmary, &c., are excellent institutions, superintended by medical gentlemen of the highest professional reputation. In the Adelphi is a handsome edifice, belonging to the society for the encouragement of arts, manufactures, and commerce. In the great hall is a series of paintings, unique in modern times, by the late James Barry. The academy of painting, sculpture, and architecture, is a valuable institution for the promotion of science and the fine arts. Of the distinguished private mansions of noblemen and others is Northumberland House, the only residence now remaining of our ancient nobility in the Strand; the duke of Marlborough's in Pall Mall, erected by the nation for the great duke John; the duke of Norfolk's, St James's Square; Burlington House; the duke of Devonshire's, and the earl of Egremont's, in Piccadilly; the marquís of Lansdowne's in Berkeley Square; earl Grosvenor's, in Upper Grosvenor Street; the earl of Chesterfield's, in South Audley Street; the marquís of Stafford's, Cleveland House; and the marquís of Anglesey's, in Burlington Street.

**WESTMINSTER, BRIDGE OF.** Near the House of Lords, Prince's Chamber, &c., is a bridge over the Thames called Westminster Bridge, accounted one of the most complete and elegant structures of the kind in the known world. It is built entirely of stone. This magnificent structure was begun in 1739 and finished in 1750 at the expense of £389,000, defrayed by the parliament.

**WESTMORLAND.**—This county receives its name from its situation to the west, and the principal part of it being formerly moorish barren land. It is one of those counties which, in the time of the Romans, was inhabited by that tribe of the ancient Britons called the Brigantes. By the Romans it was incorporated with the province of Maxima Cæsariensis; and under the Saxons it made part of the kingdom of Northumberland.

Westmorland is an inland county, being bounded



on the north-west and north by Cumberland, on the east by Durham and Yorkshire, and on the south and south-west by Lancashire. It is about forty miles in length from north-east to south-west, and from sixteen to twenty-five in breadth, and contains about 844 square miles, or 540,160 statute acres, part of which is uncultivated land. Westmorland is divided into East Ward, West Ward, Kendal, and Lonsdale Wards; and consists of twenty-six parishes, eight market towns, the principal of which is Kendal, though Appleby is the county-town.

The climate of this county, as may be expected from its vicinity to the Western Ocean, over which the south-west winds blow for nearly eight months in the year, and cause the exhalations to descend in rain and snow on the mountains, is remarkably moist. The quantity of rain that falls in the western part in a year has been ascertained by rain gauges kept at Kendal and on the banks of the Windermere. In the year 1792 it amounted to eighty-three inches: in ordinary years it amounts to forty-five or fifty inches, the lowest of which is twenty inches above the medium quantity that falls in Europe. The air, however, is pure and healthy; the winters rather long, and sometimes severe. This county is well watered by rivers, the principal of which are the Eden, the Eimot, the Loder, the Ken, and the Lune, or Lon. The Eden, which is one of the principal rivers in the north of England, rises in the moors of this county, near the borders of Yorkshire; and, after receiving several tributary streams, enters Cumberland at its confluence with the Eimot; and, taking a north-westerly direction, after passing Kirkoswald and Carlisle, flows into the Solway Frith near Rockliffe Marsh. The Eimot rises at Ullswater, and, forming the boundary between this county and Cumberland, runs into the Eden about two miles north-west from Penrith. The Loder or Lowther:—One feeder of the Lowther rises in Ulet Kedal to the south-west of Shap, and another flows out of Slawes-water, making a junction in the vale of Bampton. The stream out of Broadwater falls into Ullswater. The Lune rises in the mountains near Kirkby Stephen. The Winster constitutes for some distance the boundary of Lancashire and Westmorland. The Bethu or Relu meets the tide at Milnthorpe. The Spret and Mint are tributary streams of the Ken. The Troutbeck, Rothey and Brathey, are the grand feeders of Windermere, the waters of which are discharged under Newby bridge in Lancashire, and constitute the river Leven. There are, besides the rivers, several lakes in this county; the largest of them, and indeed the largest in England, is Winander Mere, so called probably from its winding banks. All these rivers and lakes produce great plenty of fish; and the red char is said to be peculiar to the lakes of Winander Mere and Ullswater; the only season for catching them is when they resort to the shallow parts in order to spawn.—The Lancaster canal will enter this county near Burton, and proceed north to Kendal, and when complete will open the interior of this county to an extensive chain of navigation. The most prevailing soil of Westmorland is a dry gravelly mould; sand and hazel mould appear in various parts, but chiefly in the east and north; clay is found in a few places towards the Eden and eastern mountains, and a heavy moist soil on others in the north parts of the county. Peat moss makes its appearance in small patches in many of the vales, and abounds on the tops of se-

veral high mountains, which, however, are in general covered with a dry soil on a hard blue rock, provincially called rag. This county in general is rather mountainous and hilly, so that a proportion of it must in a manner for ever remain undisturbed by the plough; but between these mountains there are several very pleasant and fertile valleys, that want only trees and hedge-rows to be truly beautiful. Notwithstanding its mountainous surface, no valuable mines have yet been found in Westmorland. Some trifling veins of lead-ore have been found in the eastern mountains; coal is wrought only in the south-east extremity of the county and in the neighbourhood of Shap, where a bastard of crow coal is got. Limestone, in almost inexhaustible abundance, is to be found in most parts of the county, except among the western hills, which afford an excellent kind of blue slates, well known over almost all England. Gypsum is got at Acronbank, near Kirkby Thore, and a few other places. Freestone is found in the eastern parts of the county, and at Hutton-roofe, about ten miles from Kendal. On the river Ken, about three miles below Kendal, a vein of beautiful marble has lately been discovered. There are some good corn and grass grown in Westmorland.

Westmorland sends three members to parliament: viz. two for the county, and one for the borough of Kendal.

Eminent Persons.—Lancelot Addison, a divine. Born at Crosby Ravensworth, 1632. Died 1703.—Henry Airey, a divine. Born 1560. Died 1616.—Christopher Airey, Born 1609. Died 1678.—Anthony Askew, a learned physician. Born at Kendal, 1722. Died 1784.—Thomas Barlow Bishop. Born at Orton, 1607. Died 1691.—John Barwick, divine. Born at Witherslack, 1612. Died 1664.—Dr. Richard Burn, vicar of Orton. Born at Winton. He was author of two celebrated books, one on the Office of a justice of Peace, the other on Ecclesiastical Law, both of which have gone through several editions. Died November 20, 1785.—William Gibson, a self-taught mathematician, of the most wonderful powers. Born at Bolton, 1720. Died October 4, 1791. A very curious account of him may be seen in the Gentleman's Magazine for November 1791; but it is too long for our insertion.—Edmund Gibson, bishop of London. Born at Knipe. 1669, eminent as an antiquarian, theological, political, and controversial writer. Died 1748.—Bernard Gilpin, an eminent divine and reformer.—Dr. Thomas Shaw, a divine and antiquary, famous for his Travels, or observations relating to several Parts of Barbary and the Levant. Born at Kendal, 1692. Died 1751.—Dr. Richard Watson, the late lord bishop of Landaff, born and educated at Heversham school near Milthorpe.

The commerce of Westmorland is now of considerable extent. Its exports are coarse woollen cloth, manufactured at Kendal; stockings, slates, tanned hides, gunpowder, hoops, charcoal, hams, wool, sheep, and cattle. Its imports are chiefly merchant goods, wheat, oats, with a little barley, cattle and sheep. Milthorpe is a very trifling port, and the only one in the county. The manufactures of this county are not of much greater importance than its commerce. They chiefly consist of coarse woollen cloth, called Kendal cottons, properly coatings, gunpowder, stockings, silk and worsted waistcoat-pieces, flannels, and tanned leather.

WESTPHALIA, CIRCLE OF, an extensive coun-



try in the north-west of Germany, varying in its boundaries and extent, in different parts of its history. Originally the name of Westphalia was given to that part of the great duchy of Saxony which lay to the west of the Weser, the part to the east of that river being called Oost or Eastphalia. The latter name was subsequently suppressed, and on the division of the empire into circles, the name of Westphalia was given (without reference to its position in regard to the Weser) to the extensive tract of country in the north-west of Germany, bounded by the Netherlands on the west, by Lower Saxony on the east, by the German Ocean on the north, and by the circle of the Lower Rhine on the south. It contained, previous to 1802, the bishoprics of Munster, Liege, Baden, and Osnabruck; the duchies of Oldenburg, Cleves, Juliers, and Berg; the principalities of East Friesland, Moers, Minden, Verden, and Nassau; to which we have to add seven abbeys, twenty-nine domains or lordships, and the free towns of Cologne, Aix la Chapelle, and Dortmund. Its area, nearly equal to that of Scotland or Ireland, was about 27,000 square miles; its population about 2,500,000. The climate of Westphalia is similar to that of Holland, or the north of Germany generally. In soil it is in general not a favored country, partaking largely of the barren and sandy nature of the north of Germany. A number of its male inhabitants remove to Holland in the summer, in quest of employment; and pass the winter at home in weaving linen. The chief seats of this, in general coarse but durable manufacture, are the districts of Osnabruck, Tecklenburg, and Ravensberg. The value of the linen sent abroad, differing necessarily in different years, is between £150,000 and £200,000. The whole is previously measured, and stamped at public offices. At the peace of Luneville all the parts of Westphalia on the west of the Rhine were ceded to France; and in 1806, when the confederation of the Rhine was formed, the circle itself was suppressed. This name has not been revived; and the Westphalian territory now belongs chiefly to Prussia, Hanover, and Oldenburg.

**WESTPHALIA**, a duchy in the west of Germany, having on the east the circle of the Upper Rhine, and on the three other sides that of Westphalia; but belonging politically to the circle of the Lower Rhine. Its extent is about 1700 square miles; but its thinly scattered population does not exceed 140,000, almost all Catholics. This duchy, belonging in former ages to the dukes of Saxony, was in the eleventh century transferred to the archbishop of Cologne. On the secularisation of 1802 it was made over to Hesse-Darmstadt; and in 1814 ceded for an equivalent to Prussia. It now forms part of the Prussian province of Westphalia, and government of Arensburg. Its southern division is unfit for tillage, but has good pasture, and is rich in forests and mines. The central part is more level and fertile; and, the hogs being remarkable both for size and number, the hams which are known by the name of Westphalia hams are exported principally from this quarter.

**WESTPHALIA, KINGDOM OF**, one of the temporary kingdoms of Buonaparte, created in 1807, and overturned in 1813. It was composed of conquests from Prussia, Hesse-Cassel, Hanover, and the smaller states to the west of the Elbe.

**WESTPHALIA, PROVINCE OF**, a province of the

Prussian states, constituted in 1816, is bounded on the west by the Netherlands, and on the east by Hanover and Hesse-Cassel. It lies between lat. 50° 43' and 52° 30' N., and has an extent of 3300 square miles, with nearly 1,000,000 inhabitants. It is divided into the three districts of Munster, Minden, and Arensburg. Its territorial aspect is very different in different quarters, the governments of Arensburg and Minden being in general hilly, while that of Munster forms part of the great plain of the north of Germany, and is a perfect level. The mountainous tracts consist of a part of the Westerwald, and of the less extensive ranges called the Haarstrang and the Egge. Here is also the Porta Westphalica, a perpendicular opening through the mountains, forced by the current of the Weser. The soil is in general stony in the hilly districts, and sandy in the plains: particular spots, however, are found productive. In general, the best land is on the slopes of the Egge range, the most extensive heaths and moors in the district of Munster. The growth of corn, on the whole, is hardly equal to the consumption. Flax, on the other hand, is raised in great quantities; and the breeding of cattle is carried to a great extent. The mountainous districts contain mines of iron, lead, copper, and coal. There are in this province, also, extensive salt-works. The manufactures are linen and hardware; the former general; the latter local. The smaller manufactures are leather, glass, paper, and cotton.

The Catholics are numerous in the territories of Munster, Paderborn, and others, formerly belonging to ecclesiastical princes; while in Minden, Ravensberg, Mark, and Siegen, the Protestants form the majority. It was from this part of Germany, and in particular from the town and district of Emern, that the expedition of the Saxons into England took place in the fifth century.

**WEST-POINT**, a post village, and military post, in Cornwall, Orange county, New York, on the west bank of the Hudson, at its passage through the Highlands; seven miles south of Newburgh, fifty-eight north of New York, 102 south of Albany. Lat. 41° 23' N. A military academy is established here, under the direction of the general government. It is governed by a colonel in chief of the corps of engineers; and has a professor of natural philosophy, and an assistant ditto, a professor of mathematics and an assistant ditto, a professor of the art of engineering, a surgeon, a chaplain, a teacher of French, a teacher of drawing, a sword master, and, in 1817, 254 cadets from the different states.

**WESTRINGIA**, a genus of plants first discovered in New Holland by Dr. Solander, who called it *cunila fruticosa*, though it is totally different from the *CUNILA* (which see), and more resembles rosemary, from which, however, it is likewise different. Its peculiar character is:—Calyx semiquinifidus, pentagonus; corolla resupinata, limbo quadrilobulo longiore erecto, bipartito: stamina distantia, duo breviora (inferiora) abortiva.

**WET**, *adj.*, *n. s.*, & *v. a.* } Sax. *poet*; Danish *WETNESS*, *n. s.* } *waed*. Humid; having some moisture adhering; opposed to dry: wetness, state of being wet.

They are *wet* with the showers of the mountains.

Better learn of him that learned be,  
And him been watered at the muses well;

Job xxiv.



The kindly dew drops from the higher tree,  
And wets the little plants that lowly dwell. *Spenser.*  
A drop of water running swiftly over straw, *wettesth*  
not. *Bacon.*

Now the sun, with more effectual beams,  
Had cheered the face of earth, and dried the wet  
From drooping plant. *Milton.*

Fishermen, who know the place wet and dry, have  
given unto seven of these valleys peculiar names.

*Brown.*

Wet weather seldom hurts the most unwise. *Dryd.*

The wetness of these bottoms often spoils them for  
corn. *Mortimer.*

Tuberoses will not endure the wet; therefore set  
your pots into the conserve, and keep them dry.

*Evelyn.*

WETH'ER, *n. s.* Sax. *ppðer*; Belg. *weder*. A  
ram castrated.

I am a tainted wether of the flock,  
Meetest for death. *Shakspeare.*

Although there be naturally of horses, bulls, or  
rams, more males than females; yet artificially, that is,  
by making geldings, oxen, and wethers, there are fewer.

*Graunt.*

It is much more difficult to find a fat wether, than if  
half that species were fairly knocked on the head.

*Swift.*

WETHER, in zoology. See OVIS, and SHEEP.

WETSTEIN (John Rodolph), a learned Swiss  
divine, born at Basil in 1647, where his father was  
professor of Greek and theology, in which he suc-  
ceeded him. He published Origen's Dialogue  
against the Marcionites, and other learned works.  
He died at Basil in 1711, aged sixty-two.

WETSTEIN (John Henry), brother of the prece-  
ding, born in 1649, was also a very learned man.  
He settled as a printer at Amsterdam, where he  
published very accurate editions of ancient authors,  
with learned prefaces. He died in 1726, aged se-  
venty-seven.

WETSTEIN (John James), a very learned German  
divine, of the same family with the two preceding, born  
at Basil in 1693. On his admission to the minis-  
try, he maintained a thesis *De variis Novi Testa-  
menti Lectionibus*; in which he showed that the  
great variety of readings of the New Testament af-  
ford no argument against the authenticity of the  
text. In 1730 he published *Prolegomena ad Novi  
Testamenti Græci editionem accuratissimam*, &c.  
Some divines, dreading his unsettling the present  
text, got him prohibited from officiating in the mi-  
nistry; on which he went to Amsterdam, where  
the Remonstrants named him to succeed the fa-  
mous Le Clerc, then superannuated, as professor  
of philosophy and history. About this time he  
published his edition of the New Testament, in 2  
vols. folio, 1752; in which he left the text as he  
found it, placing the various readings with a critical  
commentary underneath; subjoining two epistles  
of Clemens Romanus, till then unknown to the  
learned, but discovered by him in a Syriac MS. of  
the New Testament. He also published some  
small works. He died at Amsterdam in 1754.

WEX, *v. a.* Corrupted from wax by Spenser,  
for a rhyme, and imitated by Dryden. To grow;  
increase.

She first taught men a woman to obey;  
But when her son to man's estate did wax,  
She it surrendered. *Spenser.*

Counting seven from noon,  
'Tis Venus hour, and in the waxing moon. *Dryden.*

WEXFORD, a county of Ireland, situated in  
the province of Leinster. Its boundaries are on

the north Wicklow county, on the west Carlow and  
Kilkenny, on the south the ocean, and on the east  
St. George's Channel. The area of this shire mea-  
sures about fifty-six English miles in length by  
thirty-two in breadth, having an areable content of  
342,900, Irish measure. Its baronies, eight in  
number, are denominated Ballaghkeen, Bantry,  
Bargy, Forth, Gorey, Scarewalsh, Shelburne, and  
Shelmalier; the parochial division of which is into  
112 whole and eight parts of parishes. The prin-  
cipal towns are New Ross, Wexford (the assize  
town), Gorey, Enniscorthy, and Newtownbarry,  
besides Ferns the residence of the lord bishop of  
Leighlin and Ferns, and the villages of Taghmon,  
Camolin, and Coolagrany. The chief rivers are  
the Barrow, a navigable stream which separates  
part of Wexford from Kilkenny; the noble river  
Suir, the boundary between this county and Wa-  
terford; the Slaney, which, passing through Ennis-  
corthy, falls into Wexford Haven; the Bann, a tri-  
butary to the Slaney, with many rivulets.

It was probably the security consequent upon  
the peninsular nature of this district that induced  
the early settlement of an Anglo-Saxon colony in  
the baronies of Forth and Bargy, under Harvey de  
Mountmorres, in the reign of Henry II. These  
people retain their native language, manners, and  
many singular customs, to this day; they inter-  
marry amongst themselves, and intermix little with  
their neighbours. The surface of this county is  
much diversified, a vast quantity of level arable  
land, but many eminences also, generally of a con-  
ical form. The mountains are ranged along the  
north and north-west boundaries, and afford but few  
defiles accessible to travellers. The Blackstairs,  
Carrigbraig, and Mount Leinster, are lofty ranges,  
having but one opening, Scullough Gap, that ad-  
mits of communication between the adjacent shires.

The eastern coast is almost devoid of any asy-  
lum for shipping, the haven of Wexford admitting  
vessels of but small tonnage, and no attention being  
paid to this important deficiency, except at Cour-  
town, where some ingenious designs for the forma-  
tion of a harbour are now executing. The dangers  
of the southern coast have been latterly much dimi-  
nished by the erection of a lighthouse on the Tus-  
kar rock, and the stationing of a light ship at Co-  
ningbeg, to the south of the Saltees. However the  
export trade of this county might, without much  
inconvenience, be carried on through the port and  
river of Waterford. Grain is exported from Wex-  
ford, and tallow, hides, wool, pigs, and black cat-  
tle, from Waterford and elsewhere. Wexford re-  
tains many landed proprietors as constant resi-  
dents; and the cheapness of the necessaries of life  
has drawn into this county a number of respectable  
families, to the narrowness of whose means the  
markets of Wexford were accommodated.

There were many religious houses anciently  
founded in this county, remains of which are still  
visible. William earl of Pembroke founded a mo-  
nastery in Bannowbay called Tintern Abbey, and  
translated some of the Cistercian monks from Tin-  
tern in Monmouthshire to this place. But the  
most famous, as well as the most beautiful, was  
Dunbrody Abbey, founded by Harvey de Monte  
Mauresco in the year 1178, and by him richly en-  
dowed. The ruins of Dunbrody which still remain  
are magnificent and picturesque; the situation, on  
a sloping bank of the river Barrow, near the junc-  
tion of the Suir, is perfectly beautiful, and the in-



rior is sublimely grand and awful. Many other monastic remains through the county are well worth the attention of the antiquarian, though none so interesting as the elegant ruins of Dunbrody.

WEXFORD, town, the capital of the county of that name, is a sea-port, market, post, and fair town. It stands on Wexford Haven, at the mouth of the river Slaney. It contains the parishes of St. Iberius, St. Michael, St. John, and St. Peter. Here are a diocesan school, a Lancasterian school of 200 boys, and a convent-school of 230 girls instructed by the nuns. Wexford is in lat.  $52^{\circ} 15'$ , long.  $6^{\circ} 25'$ . It gives title of earl to the family of Talbot earl of Shrewsbury in England, and returns one member to the imperial parliament. This place was founded by the Danes, who called it Wessford, and sometimes Carman; but they were dispossessed by the English in 1170. Before the arrival of Strongbow, Fitzstephen was in possession of this place; but he surrendered it to Henry II., who sailed thence into England.

In 1649 Wexford gave obstinate resistance to Oliver Cromwell, who put the governor and garrison to the sword. The town was formerly regularly fortified, and much of the walls still remain. Here are several public buildings, a handsome church, Roman Catholic chapel, jail, custom house, market house, barracks, and several excellent private houses. The trade of this port, though valuable to the county, must still necessarily be limited, owing to the obstruction of the barred harbour. The haven of Wexford is enclosed naturally by two isthmuses of land equivalent to breakwater, and would afford safe lying for any vessels that could obtain ingress; but the bar prevents vessels drawing more than ten feet from entering. The exports are corn, hides, and tallow; the only manufacture is that of woollen cloth.

WEYMOUTH, an ancient sea-port, borough, and market town, in the parish of Wike-regis, Dorchester, divided from Melcombe-regis by the river Wey, over which an elegant stone bridge has recently been erected; eight miles south of Dorchester, and 130 W. S. W. of London. Till within the last thirty or forty years, it was but a small and indifferently built town; but since it has become a fashionable bathing place, it has been greatly enlarged. It was first brought into repute in this respect in 1763, by the then duke of Gloucester, who erected Gloucester-Lodge in the front of the bay. It was subsequently visited by the late king and his family with great benefit in 1789, who, making it their summer residence, gave it a fashionable reputation. The residences are in Gloucester Row, Chesterfield Place, York Buildings, Charlotte Row, Clarence Buildings, St. Alban's Row, and Belle Vue. The church is a low building, and consists of three aisles; the altar-piece is universally admired. The Quakers and Independents have each a meeting house. Weymouth formerly carried on a considerable trade, and was the principal port of the county, but it is now rivalled by Poole. Near the centre of the town is a commodious hot salt water bath; there are likewise private cold baths. At the west end is a small town hall. It is governed by a mayor and aldermen under one charter with Melcombe-regis. The theatre is neatly fitted up, and has a good company. The public room and hotel stands in the centre of Gloucester Row; the assembly room is very spacious and lofty, and the

interior is handsomely decorated; here are also several well furnished libraries, numerous lodging-houses, and every thing that can be adapted to the pleasure and convenience of numerous visitors. The port is defended by two castles, Sandford and Portland. The harbour is a tide harbour, but the road has good anchorage in four or five fathoms. The fashionable promenade is on the Esplanade, about half a mile long and thirty feet broad. The Look-out, on the Weymouth side of the river, is another pleasant and much frequented walk. Three packets are stationed here for the islands of Guernsey and Jersey. At the distance of one mile and a half from the turnpike, on the left of the Dorchester road, is the little village of Nottington, famous for its medicinal spring, which has a strong sulphureous smell though perfectly limpid. This borough unites with Melcombe Regis in returning two members.

WHALE, *n. s.* Sax. *hpale*. The largest of fish.

God created the great whales.

*G. ues.*

A bearded goat whose rugged hair,  
And whaly eyes, the sign of jealousy,  
Was like the person's self whom he did bear.

*Faerie Queene.*

Barred up with ribs of whale-bone she did leese  
None of the whale's length, for it reached her knees.

*Bishop Corbet.*

The greatest whale that swims the sea  
Does instantly my power obey.

*Swift.*

WHALES, FISHERY OF. See FISHERY.

WHAMPOA, a sea-port of China, on an island in the river of Canton, about two miles below that city. Here large ships anchor, and carry on their communication with Canton by boats. All European vessels are allowed to wear a flag in their boats, which prevents their being stopped at the custom-houses; while those of Asiatic nations must have a chop or pass, to be renewed at the custom-houses. The island on which Whampoa is situated is called Bankshall Island, from being the place where store houses are constructed of Bamboos and mats, to contain the ships' stores, overhaul the rigging, repair casks, &c. Immediately on the arrival of any vessel, two custom-house boats are placed along side to prevent clandestine trade. Lat.  $23^{\circ} 6' N$ .

WHARF, *n. s.* Swed. *wharf*; Belg. *werf*. A perpendicular bank or mold, raised for the purpose of lading or emptying vessels; a quay, or key.

Duller shouldst thou be than the fat weed  
That roots itself in ease on Lethe's wharf,  
Wouldst thou not stir in this.

*Shakespeare.*

There were not in London used so many wharfs, or keys, for the landing of merchants' goods.

*Child.*

WHARTON (Anne), marchioness of, wrote several poems in Dryden's and Nichols's collections. She died in 1685.

WHARTON (Sir George), an astrologer, born in Westmorland. He spent the best part of his fortune in the cause of king Charles I., and, after the ruin of the royalists, compiled Almanacs, wrote Astronomical Tracts, A Chronology of Remarkable Events, and other works. He also wrote some doggerel poems. After the Restoration, he was created a baronet, and made treasurer of the ordnance. He died in 1681.

WHARTON (Henry), born at Worstead in Norfolk, of which his father was vicar, in 1661. He was educated at Caius College, Cambridge, and became chaplain to archbishop Seecroft, who made



him rector of Chartham, and vicar of Minster, in Kent. He wrote, 1. A Treatise on the Celibacy of the Romish Clergy. 2. Errors in Burnet's History of the Reformation. 3. Defence of Pluralities; 8vo. 4. Historia de Episcopis et Decanis Londinensibus, necnon Assavensibus; 8vo. 5. Anglia Sacra, sive Collectio Historiarum, &c. 2 vols. folio. And, 6. A volume of Sermons. He died in 1695.

WHARTON (Philip), duke of, a witty and dissipated nobleman, was born in the end of the seventeenth century. In 1716 he went abroad, and, in the course of his travels, paid his respects to the consort of James II. and her son. He returned in the same year, and, though under age, he took his seat in the Irish house of peers, and immediately distinguished himself as a violent partizan for the ministry; in consequence of which zeal the king created him a duke. He no sooner came of age than he was introduced to the house of lords in England with a blaze of reputation. In a little time he opposed the court, and appeared one of the most vigorous in defence of the bishop of Rochester, and soon after printed his thoughts twice a-week, in a paper called the True Briton, several thousands of which were dispersed weekly. But his boundless profusion soon rendered it necessary for him to leave his country; and the remainder of his life consisted of a series of traitorous intrigues with foreign courts, conducted during a course of extravagant dissipation. He died about 1731, in the utmost wretchedness and poverty, at a convent in Catalonia. His Life and Writings were published in 2 vols. 8vo.

WHAT, *pron.* } Sax. *hþæt*; Belg. *wat*. That  
WHAT'EVER, } which; which part; pronoun  
WHAT'SO, } indefinite; used also adverbially  
WHAT'SOEVER. } bially for partly: whatso is discontinued.

What art thou,  
That here in desert hast thy habitation? *Spenser.*

The enemy having his country wasted, *what* by himself, and *what* by the soldiers, findeth succour in no place. *Id.*

Whatsoever our liturgy hath more than theirs, they cut it off. *Hooker.*

The year before, he had so used the matter, that *what* by force, *what* by policy, he had taken from the Christians above thirty small castles. *Knolles.*

What! canst thou not forbear me half an hour?

Then get thee gone, and dig my grave thyself. *Shakspeare.*

To forfeit all your goods, lands, tenements, Castles, and whatsoever, and to be

Out of the king's protection. *Id.*

I tell thee *what*, corporal, I could tear her. *Id.*

See *what* natures accompany *what* colours; for by that you shall induce colours by producing those natures. *Bacon.*

Let them say *what* they will, she will do *what* she list. *Drayton.*

Whatsoever is first in the invention, is last in the execution. *Hammond.*

If thence he 'scape into *whatever* world. *Milton.*

It can be no more sin to ask *what* God grants. *Kettleworth.*

What's'er I begged, thou like a dotard speakest

More than is requisite; and *what* of this?

Why is it mentioned now? *Dryden.*

What though none live my innocence to tell?

I know it; truth may own a generous pride;

I clear myself, and care for none beside. *Id.*

Mark *what* it is his mind aims at in the question,

and not *what* words he expresses. *Locke.*

A satire on one of the common stamp never meets

with that approbation, as *what* is aimed at a person whose merit places him upon an eminence. *Addison.*

They live a popular life, and then *what* for business, pleasures, company, there is scarce room for a morning's reflection. *Norris.*

No contrivance, no prudence *whatsoever*, can deviate from his scheme, without leaving us worse than it found us. *Atterbury.*

If any thing be stated in a different manner from *what* you like, tell me freely. *Pope.*

I desire nothing, I press nothing upon you, but to make the most of human life, and to aspire after perfection in *whatever* state of life you chuse. *Law.*

WHEAL, *n. s.* See WEAL. A pustule; a small swelling filled with matter.

The humour cannot transpire, whereupon it corrupts, and raises little *wheals* or blisters. *Wiseman.*

WHEARE (Degory), born at Jacobstow, in Cornwall, in 1573, and educated at Exeter College, Oxford. He became Camden's professor of history, and principal of Gloucester Hall. He published *De Ratione et Methodo Legendi Historias* Dissertatio; 1625 and 1637. It was translated into English by Edmund Bohun. Wheare died in 1647.

WHEAT, *n. s.* } Sax. *hweate*; Belg. *weit*;  
WHEAT'EN, *adj.* } Goth. *hueit*. The grain of which bread is chiefly made: made of wheat.

Reuben went in the days of wheat-harvest.

*Genesis xxx.*

Of *wheaten* flour shalt thou make them. *Exod. xxix.*

He mildews the white *wheat*, and hurts the poor creature of the earth. *Shakspeare. King Lear.*

Here summer in her *wheaten* garland crowned.

*Addison.*

The damsels laughing fly: the giddy clown

Again upon a *wheat*-sheaf drops adown. *Gay.*

Next to rice is *wheat*; the bran of which is highly acescent. *Arbuthnot on Aliments.*

His task it was the *wheaten* loaves to lay,  
And from the banquet take the bowls away. *Pope.*

There is a project on foot for transporting our best *wheaten* straw to Dunstable, and obliging us by law to take off yearly so many tun of the straw hats. *Swift.*

WHEAT, in botany. See TRITICUM. The three principal kinds of bad wheat are, the blighted, the smutty, and the worm-eaten.

WHEAT, BLIGHTED, is that of which the stalk is a little twisted and ricketty, the blade being of a bluish green and curled up; the grain also is green and tubercled.

WHEAT, BUCK. See POLYGONUM, and RURAL ECONOMY.

WHEAT, WORM-EATEN, or rotten wheat, is corrupted without losing much of its natural form or external appearance; the husk is filled with a greasy black powder, that is insufferably fetid. It appeared, from the experiments of M. Tillet, that there was a kind of infectious quality in all the bad kinds of wheat; so that if sound wheat was sprinkled with the flour of smutty or rotten wheat, the crop produced would be rotten or smutty. It appeared, also, that among the grain which was produced from ground manured with the straw of distempered wheat, there was a much greater proportion of distempered wheat than in that produced from ground manured with the straw of good wheat: the great secret then was to destroy the principle of this contagion in the wheat that was put into the ground; and M. Tillet found, as the result of a great number of experiments, that if the grain, before it is sowed, be well moistened with a solution of sea-salt, or nitre, in common water,

none of the ensuing crop will be smutty, or otherwise defective, either in kind or quality; not only supposing the grain that is sowed to be sound, and the soil to be good, but even supposing the grain to be strewn with the flour of smutty wheat, and the ground manured with bad straw.

**WHEATEAR**, *n. s.* *Lat. ocuanthe.* A small bird, very delicate.

What cook would lose her time in picking larks, wheatears, and other small birds? *Swift.*

**WHEATLEY** (Charles), born in London in 1686, and educated at St. John's College, Oxford, of which he became fellow. He was chosen lecturer of St. Mildred, London, and appointed vicar of Brent and Furneaux-Pelham. He published, 1. A rational Illustration of the Book of Common Prayer; folio and 8vo.; 2. Historical Vindication of the eighty-fifth canon: 3. Answer to Hoadley on the Sacrament: 4. Private devotions at the Communion: 5. Sermons at Lady Moyer's, Lecture; 8vo. He died at Furneaux in 1742; after which his Miscellaneous Sermons were published in 3 vols. 8vo.

**WHEEDLE**, *v. a.* Of this word I can find no etymology.—Johnson. Locke seems to think it a cant word. Goth. *knedla*, *quedla*.—Thomson. To entice by soft words; flatter; persuade.

His bus'ness was to pump and wheedle,  
And men with their own keys unridde,  
To make them to themselves give answers,  
For which they pay the necromancers. *Hudibras.*

His sire  
From Mars's forge sent to Minerva's schools,  
To learn the unlucky art of wheedling fools. *Dryden.*

He that first brought the word sham, or wheedle, in use, put together, as he thought fit, ideas he made it stand for. *Locke.*

Johnny wheedled, threatened, fawned,  
Till Phillis all her trinkets pawned. *Swift.*

**WHEEL**, *n. s., v. n., &* Saxon *hpeol*; Belg. *wiel*; Isl. *hioel*; Swed. *hiul*; Goth. *huel*. An instrument turning on its axis; the instrument of spinning; revolution; rotation; an instrument of horrid torture: to wheel is, to revolve on an axis; turn; fetch a compass: to put into rotatory motion: a wheelbarrow, a barrow moving on one wheel: wheeler, and wheelwright, are both names for the maker of wheels, or wheel carriages: wheely is circular; rotatory.

Continually wheeling about, he kept them in so strait, that no man could, without great danger, go to water his horse. *Knives.*

*Spies*  
Held me in chace, that I was forced to wheel  
Three or four miles about. *Shakspeare. Coriolanus.*  
Let go thy hold when a great wheel runs down a hill, lest it break thy neck with following it. *Shakspeare.*  
Let them pull all about mine ears, present me Death on the wheel, or at wild horses' heels. *Id.*  
Look not too long upon these turning wheels of vicissitude, lest we become giddy. *Bacon.*

After local names, the most have been derived from occupations, as Potter, Smith, Brasier, Wheeler, Wright. *Camden.*

Carnality within raises all the combustions without: this is the great wheel to which the clock owes its motion. *Decey of Piety.*

He throws his sight in many an airy wheel. *Milton.*

Her motions, as the great first Mover's hand  
First wheels their course. *Id. Paradise Lost.*

He at hand provokes

His rage, and plies him with redoubled strokes;

Wheels as he wheels. *Dryden.*

Some watches are made with four wheels. *Locke.*  
It is a tough wood, and all heart, being good for the wheelwrights. *Mortimer.*

Hinds exercise the pointed steel  
On the hard rock, and give a wheely form  
To the expected grinder. *Philips.*

Pippins did in wheelarrows abound. *King.*

His examination is like that which is made by the rack and wheel. *Addison.*

**WHEEL**, in mechanics, is a simple machine, consisting of a round piece of wood, metal, or other matter, which revolves on its axis. See **MECHANICS**, **CLOCK**, and **WATCH**.

**WHEEL** is also the name of a barbarous kind of punishment to which great criminals are put in divers countries. In some, assassins, parricides, and robbers on the highway, are condemned to the wheel, when they are to have their bones first broken with an iron bar on a scaffold, and then to be exposed, and left to expire on a wheel. In Germany they break their bones on the wheel itself.—This cruel punishment was first used in Germany, and was rarely practised any where else, till Francis I. appointed it to be inflicted on robbers.

**WHEEL**, **PERSIAN**. See **HYDROSTATICS**.

**WHEELER** (Sir George), a learned traveller and divine, was the son of colonel Wheeler of Charing in Kent, and was born in 1650 at Breda, where his parents, as royalists, were then in exile. He travelled through various parts of Greece and the East, in company with Dr. James Spon of Lyons; and, taking orders on his return, was installed a prebend of Durham, made vicar of Basingstokes, and afterward rector of Houghton le Spring. He published an account of his Travels in 1682, in folio; and in 1689 his Observations on Ancient Edifices, or Churches yet remaining in the east, compared with Eusebius; also the Protestant Monastery, or Christian Economics. He died in 1724.

**WHEEZE**, *v. n.* Sax. *hpeoron*. To breathe with noise.

The fawning dog runs mad; the wheezing swine  
With coughs is choaked. *Dryden's Virgil.*

Prepare balsamic cups, to wheezing lungs  
Medicinal, and short-breathed. *Philips.*

**WHELK**, *n. s.* See **WELK**. An inequality; protuberance.

His face is all bubuckles, and whelks, and knobs, and flames of fire. *Shakspeare. Henry V.*

**WHELM**, *v. a.* Sax. *aphilgan*; Isl. *wilma*. To cover with something not to be thrown off; to bury.

Grievous mischiefs which a wicked fay  
Had wrought, and many whelmed in deadly pain. *Spenser.*

This pink is my prize, or ocean whelm them all. *Shakspeare.*

Whelm some things over them, and keep them there. *Mortimer.*

So the sad offence deserves,  
Plunged in the deep for ever let me lie,  
Whelmed under seas. *Addison.*

Deplore  
The whelming billow and the faithless oar. *Gay.*

**WHELP**, *n. s. & v. n.* Sax. *puelp*; Isl. *huelpur*; Swed. *huelp*. A cub; a puppy; a son, or young man, in contempt: to bring young.

The lion's whelp shall be to himself unknown. *Shakspeare.*



The young *whelp* of Talbot's raging brood  
 Did flesh his puny sword in Frenchmen's blood. *Id.*  
 A lioness hath *whelped* in the streets,  
 And graves have yawned. *Id. Julius Caesar.*  
 Those unlickt bear *whelps*. *Donne.*

In their palaces,  
 Where luxury late reigned, sea-monsters *whelped*  
 And stabled. *Milton's Paradise Lost.*  
 In a bitch ready to *whelp* we found four puppies. *Boyle.*

**WHELPS**, in a ship, the seaman's term for those brackets which are set up on the capstan close under the bars; they give the sweep to it, and are so contrived that the cable winding about them may not surge so much as it might otherwise do if the body of the capstan were quite round and smooth.

**WHEN**, *adv.* } Sax. *hpenne*; Goth. *whan*;  
**WHEN'EVER**, } Belg. *wan*; Teut. *wann*. At  
**WHEN'SOE'ER**, } the time that; at what or which  
 time; used interrogatively: 'when as,' is at the time  
 when: whenever and whensoever is at whatsoever  
 time.

When was it she last walked?  
 —Since his majesty went into the field. *Shakspeare.*  
 I was adopted heir by his consent;  
 Since when his oath is broke. *Id. Henry VI.*  
 His seed, when is not set, shall bruise my head. *Milton.*

O welcome hour *whenever*! Why delays  
 His hand to execute? *Id. Paradise Lost.*  
 Nature would not suffer him to think otherwise, how  
 or *whensoever* he is brought to reflection. *Locke.*  
 'That which he delights in must be happy,  
 But when? or where?' *Addison.*

**WHENCE**, *adv.* } Formed from where, by  
**WHENCE'SOE'ER**, } the same analogy with hence  
 from here. From what place? source? person?  
 cause? from which premises; from what place or  
 person indifferently: 'from whence' and 'of  
 whence' are barbarisms often used: *whencesoe'er*  
 is from what place or cause soever.

From whence he views, with his black-lidded eye,  
 Whatso the heaven in his wide vault contains. *Spenser.*

O how unlike the place from whence they fell!  
*Milton.*

Whence and what art thou, execrable shape? *Id.*

He asked his guide,  
 What and of whence was he who pressed the hero's side?  
*Dryden.*

Any idea, *whencesoe'er* we have it, contains in it all  
 the properties it has. *Id.*

Whence comes this unsought honour unto me?  
 Whence does this mighty condescension flow? *Fent.*

**WHERE**, *adv.* } Saxon *hpen*; Belg.  
**WHERE'ABOUT**, } *waer*; Goth. *huar*. At  
**WHEREAS**, } which place or places;  
**WHEREAT**, } at what place? at the  
**WHEREBY**, } place in which; 'any  
**WHEREE'ER**, } where' is any place: it  
**WHEREFORE**, } is also used both prono-  
**WHEREIN**, } minally, as in 'whereof,'  
**WHEREINTO**, } of which; and as a noun  
**WHERE'NESS**, *n. s.* } in 'no where': where-  
**WHEREOF**, *adv.* } about is, near where;  
**WHEREON**, } concerning which:  
**WHERE'SO**, } whereas, when or but;  
**WHERE'SOE'ER**, } on the contrary; at  
**WHERE'TO**, } which place (obsolete);  
**WHEREUNTO**, } the thing being so that:  
**WHEREUPON**, } whereat, at which:  
**WHEREWITH**, } whereby, by which:  
**WHEREWITHAL**, } wherever, at whatsoever

place: wherein, in which or what: whereinto, into  
 which: whereness, ubiety; locality: whereof, of  
 which or of what: whereon, on which: whereso  
 and wheresoe'er, in what place soever: whereto  
 and whereunto, to which or what: whereupon,  
 upon which: wherewith and wherewithal, with  
 which or what.

They say, *wherein* have we wearied him? *Malachi.*  
 If the salt hath lost its savour, *wherewith* shall it be  
 salted? *Matthew.*

This he thought would be the fittest resting place,  
 till we might go further from his mother's fury; *whereas*  
 he was no less angry, and ashamed, than desirous to  
 obey Zelmane. *Sidney.*

But even that, you must confess, you have received  
 of her, and so are rather gratefully to thank her, than  
 to press any further, till you bring something of your  
 own, *whereby* to claim it. *Id.*

He shall find no *where* safe to hide himself. *Spenser.*

Which to avenge on him they dearly vowed,  
*Wherever* that on ground they mought him find. *Id.*

That short revenge the man may overtake,  
*Whereso* he be, and soon upon him light. *Id.*

As for those things *wherewith* superstition worketh,  
 polluted they are. *Hooker.*

She bringeth forth no kind of creature *whereto* she is  
 wanting in that which is needful. *Id.*

God doth in publick prayer respect the solemnity of  
 places, *where* his name should be called on amongst his  
 people. *Id.*

The greatness of all actions is measured by the wor-  
 thiness of the subject from which they proceed, and the  
 object *whereabout* they are conversant. *Id.*

Prevent those evils *whereby* the hearts of men are  
 lost. *Id.*

Bid them farewell, Cordelia, though unkind;  
 Thou lovest here, a better *where* to find. *Shakspeare.*

Shall I tell you why?

—Ay, Sir, and *wherefore*; for, they say, every why  
 hath a *wherefore*. *Id.*

When ever yet was your appeal denied?  
*Wherein* have you been galled by the king? *Id.*

Where 's the palace *whereinto* foul things  
 Sometimes intrude not? *Id.*

Poor naked wretches, *wheresoe'er* you are,  
 That bide the pelting of this pitiless storm,  
 How shall your houseless heads defend you  
 From seasons such as these? *Id.*

Northumberland, thou ladder *wherewithal*  
 The mounting Bolingbroke ascends my throne. *Id.*

*Whereas* wars are generally causes of poverty, the  
 special nature of this war with Spain, if made by sea,  
 is likely to be a lucrative war. *Bacon.*

In regard of the troubles *wherewith* this king was  
 distressed in England, this army was not of sufficient  
 strength to make an entire conquest of Ireland. *Davies.*

The townsmen mutinied, and sent to Essex; *where-*  
*upon* he came thither. *Clarendon.*

Where were ye, nymphs, when the remorseless deep  
 Closed o'er the head of your loved Lycidas? *Milton.*

Whereat I waked, and found  
 Before mine eyes all real, as the dream  
 Had lively shadowed. *Id.*

O *wherefore* was my birth from heaven foretold  
 Twice by an angel? *Id.*

Heaven  
 Is as the book of God before thee set,  
*Wherein* to read his wondrous works. *Id.*

How this world, when and *whereof* created. *Id.*

He oft  
 Frequented their assemblies *whereso* met. *Id.*

*Whereto* the Almighty answered, not displeased. *Id.*

Where-e'er thy navy spreads her canvas wings,  
 Homage to thee, and peace to all, she brings. *Waller.*  
*Whereas* seeing requires light, a free medium, and a

right line to the objects, we can hear in the dark, immured, and by curve lines. *Holder.*

The climate above thirty degrees, may pass for the Hesperides of our age, whatever or *where-ever* the other was. *Temple.*

'Tis not very probable that I should succeed in such a project, *whereof* I have not had the least hint from any of my predecessors, the poets. *Dryden.*

This delight they take in doing of mischief, *whereby* I mean the pleasure they take to put any thing in pain that is capable of it, is no other than a foreign and introduced disposition. *Locke.*

A point hath no dimensions, but only a *whereness*, and is next to nothing. *Grew.*

Are not those found to be the greatest zealots who are most notoriously ignorant? *whereas* true zeal should always begin with true knowledge. *Sprat.*

Those subterraneous waters were universal, as a dissolution of the exterior earth could not be made any *where* but it would fall into waters. *Burnet.*

The prince could save from such a number of spoilers *wherewithal* to carry on his wars abroad. *Davenant.*

*Wherever* he hath receded from the Mosaick account of the earth, he hath receded from nature and matter of fact. *Woodward.*

The frequency, warmth, and affection, *wherewith* they are proposed. *Rogers.*

He cannot but love virtue, *wherever* it is. *Atterbury.*

Ah! *where* was Eloise? *Pope.*

*Whereas* at first we had only three of these principles, their number is already swollen to five. *Baker.*

There are times *wherein* a man ought to be cautious as well as innocent. *Swift.*

WHERRY, *n. s.* Goth. *veerie*, is a light boat. A light boat used on rivers.

And in his oaken cup doth float

As safe as in a *wherry*. *Drayton.*

Safe within my little *wherry*,

All their madness makes me merry. *Swift.*

WHET, *v. a. & n. s.* } Sax. *hpetan*; Gothic

WHETSTONE, *n. s.* } *huetia*; Swedish *huetlia*.

WHETTER.

To sharpen by attrition; to edge: hence to provoke; make angry: a whet is the act of sharpening; any thing that sharpens, as a dram the appetite, &c.: a whetstone is a stone for whetting: whether, he who whets.

They use their affection as a *whetstone* both to wit and memory. *Hooker.*

He favoured the Christian merchants; and the more to *whet* him forwards, the bassa had cunningly insinuated into his acquaintance one Mulearabo. *Knolles.*

Fool, thou *whett'st* a knife to kill thyself. *Shaks.*

I will *whet* on the king. *Id.*

A *whetstone* is not an instrument to carve with, but it sharpens those that do. *Shakspeare Illustrated.*

The cause why onions, salt, and pepper, in baked meats, move appetite, is by vellication of those nerves; for motion *whetteth*. *Bacon.*

Let not thy deep bitterness beget  
Careless despair in me; for that will *whet*  
My mind to scorn. *Donne.*

What availed her resolution chaste,  
Whose soberest looks were *whetstones* to desire? *Fairfax.*

Love and enmity are notable *whetters* and quickeners of the spirit of life in all animals. *More.*

Unsophisticated vitriol, rubbed on the *whetted* blade of a knife, will not impart its colour. *Boyle.*

Great contemporaries *whet* and cultivate each other. *Dryden.*

An iv'ry table is a certain *whet*;  
You would not think how heartily he'll eat. *Id.*

Diligence is to the understanding as the *whetstone* to the razor; but the will is the hand that must apply the one to the other. *South.*

He assisted at four hundred bowls of punch, not to mention sips, drams, and *whets*. *Spectator.*

WHETHER, *adv. & pron.* Sax. *hpcæþen*. A particle expressing one part of a disjunctive question in opposition to the other; answered by *or*: which of the two?

*Whether* of them twain did the will of his father? *Matthew xxi.*

As they, so have we likewise a public form, how to serve God both morning and evening, *whether* sermons may be had or no. *Hooker.*

Resolve *whether* you will or no. *Shakspeare.*

Perkin's three counsellors registered themselves sanctuary-men; and *whether* upon pardon obtained, or continuance within the privilege, they were not proceeded with. *Bacon.*

It has been the question of some curious wits *whether* in the world there are more heads or feet? *Holyday.*

*Whether* by health or sickness, life or death, mercy is still contriving and carrying on the spiritual good of all who love God. *South.*

Let them take *whether* they will: if they deduce all animals from single pairs, even to make the second of a pair is to write after a copy. *Bentley.*

The WHETSTONE, in the old system of mineralogy, was ranked as a genus of vitrescent stones, consisting of fragments of an indeterminate figure, subopaque, and granulated. There were several species, some consisting of rougher, and others of smoother, or even of altogether impalpable particles, and used not only for whet-stones, but also for mill-stones, and other such purposes. It was called *cos* by the Greeks. Another species was the *cos turcica*, or turkey-stone, a species of stones of the garnet kind, belonging to the siliceous class. It is of a dull white, and often of an unequal color, some parts appearing more compact than others. Its specific gravity is 2.598; it strikes fire with steel, and effervesces with acids. Mr. Kirwan found that 100 parts of it contained 25 of mild calcareous earth, and no iron. Cronstedt is of opinion that there are probably two sorts of stones known by this name, as that described by Wallerius neither gives fire with steel nor effervesces with acids. It is used as a whetstone; and those of the finest grain are the best hones for the most delicate cutting tools, razors, lancets, &c. See MINERALOGY, TURKOIS, and TURQUOISE.

WHEY, *n. s.* Sax. *hpcæg*; Belgic *hui*, *wey*.

WHEY'Y, *adj.* } The thin or serous part of milk:

WHEY'ISH. } partaking of, or resembling whey.

I'll make you feed on curds and *whey*. *Shakspeare.*

Those medicines being opening and piercing, fortify the operation of the liver, in sending down the *wheye* part of the blood to the reins. *Bacon.*

He that quaffs

Such *wheish* liquors, oft with cholic pangs

He'll roar. *Philips.*

WHICH, *pron.* } Sax. *hpile*; Dutch *welk*;

WHICHSOEVER. } Teut. *welch*; Goth. *huiltk*. Who like; the pronoun relative; relating to things; the genitive is *when*, and it was formerly much used for who: whichsoever is, whether one or the other.

*Which* of you convinceth me of sin? *John.*

Do they not blaspheme that worthy name by the *which* ye are called? *James ii. 7.*

The apostles term it the pledge of our heavenly inheritance, sometimes the handsel or earnest of that *which* is to come. *Hooker.*

Every one hears that,

*Which* can distinguish sound. *Shakspeare.*



What is the night ?

—Almost at odds with morning, *which is which.*

*Id.*

In destructions by deluge, the remnant *which* hap to be reserved are ignorant.

*Bacon.*

Of man's first disobedience, and the fruit Of that forbidden tree, *whose* mortal taste.

*Milton.*

*Whichever* of these he takes, and how often soever he doubles it, he finds that he is not one jot nearer the end of such addition than at first setting out.

*Locke.*

To *which* their want of judging abilities, add also their want of opportunity to apply to such consideration as may let them into the true goodness and evil of things, *which* are qualities *which* seldom display themselves to the first view.

*South.*

Two fair twins,

The puzzled strangers *which* is *which* enquire.

*Tickel.*

**WHICHCOT** (Benjamin), D. D., born in Shropshire in 1609, and educated at King's College, Cambridge, of which he became fellow, and at length provost, when he raised its funds to the most flourishing state by his economy. But in spite of his merits, having written Complimentary verses on Oliver Cromwell, he was, by order of Charles II., displaced from his provostship in 1661. But in 1662 he was chosen minister of St. Anne's Blackfriars. In 1668 he was made by the king vicar of St. Lawrence Jury, and preached for seven years before the court of aldermen at Guildhall. He died in 1668, and his funeral sermon was preached by archbishop Tillotson. The first volume of his Select Sermons was published by the earl of Shaftesbury in 1698; the three next by Dr. Jeffrey, and the fifth by Dr. S. Clarke.

**WHIDAH**, a county of Western Africa, and, till within the last half century, an independent kingdom; the most fertile and improved of any on the African coast. Its sea-shore indeed did not extend above nine or ten leagues, and its breadth inland was not quite so great; but being every where covered with towns and villages, and cultivated like a garden, it contained a considerable population, and some magnificent forests. These woods indeed became so many groves by the cultivated fields with which they were every where intersected, and in which were raised two or even three crops of rice, millet, maize, yams, and potatoes. The people in their manners exhibited nothing of the usual negro rudeness, but were mild, tame, and comparatively polished. Snake worship, however, one of the most degrading of superstitions, formed the leading feature of Whidah observance. The temple of the great snake formed the ornament of the capital, and was propitiated by lavish gifts, sometimes even by human sacrifices. Every town of any consequence had a similar temple on a smaller scale. Their mild and placable character, and their habits of industry, caused them to be much sought after as slaves. The English, Dutch, and Portuguese, established factories at Griwhee, or Whidah, which formed the principal sea-port, though the residence of the sovereign was at Xavier, or Sabi. This prosperous state of Whidah was entirely subverted in 1727 by the invasion of Guadja Trudo, the fierce and warlike sovereign of Dahomey, and the body of the nation was reduced to slavery. A considerable proportion of the Whidahs, however, escaped into the neighbouring country of Popo, whither their enemies were unable to pursue them, and in this retreat they have ever since retained their name and existence as a nation; but all their attempts have

been vain to regain possession of their original territory.

**WHIFF**, *n. s.*

Sax. hpiß; Welsh *chwyth*.

**WHIFFLE**, *v. n.*

A blast; a puff of wind: to

**WHIFFLER**, *n. s.* } move inconstantly, as with the wind: he who is so moved; an ancient officer of state.

Pyrrhus at Priam drives, in rage strikes wide;

But with the *whiff* and wind of his fell sword

The unnerved father falls.

*Shakspeare.*

Which, like a mighty *whiffler* 'fore the king,

Seems to prepare his way.

*Id.*

Nothing is more familiar than for a *whiffing* top, that has not one grain of the sense of a man of honour, to play the hero.

*L'Estrange.*

Our fine young ladies retain in their service a great number of supernumerary and insignificant fellows, which they use like *whiffers*, and commonly call shoeing-horns.

*Spectator.*

**WHIG**, *n. s.*

Sax. hpeæg. Whey; the

**WHIGGISH**, *adj.*

name of a celebrated English

**WHIGGISM**, *n. s.*

political party. See the extract from Burnet: the adjective and noun substantive correspond.

The marquis of Argyle and his party came and headed them, they being about six thousand. This was called the wiggamors' inroad; and, ever after that, all that opposed the court came in contempt to be called *whigs*: and from Scotland the word was brought into England, where it is now one of our unhappy terms of disunion.

*Burnet.*

Whoever has a true value for church and state, should avoid the extremes of *whig* for the sake of the former, and the extremes of tory on the account of the latter.

*Swift.*

She'll prove herself a tory plain,

From principles the *whigs* maintain;

And, to defend the *whiggish* cause,

Her topicks from the tories draws.

*Id.*

I could quote passages from fifty pamphlets, wholly made up of *whiggism* and atheism.

**WHIG** is not whey, but the slightly acidulated serum of butter-milk; and, this being the most insignificant part of the milk, the name was applied in contempt by the Tories, or the supporters of unlimited absolute power and indefeasible hereditary right in the monarch, to all their political opponents who stood up for the rights of the people, in opposition to despotism.

**WHILE**, *n. s., adv., &*

Sax. hpile; Irish

**WHILES**, *adv.*

[*v. n.*] huila. Time; space

**WHILST**,

of time: while, adverb,

**WHIL'ERE**,

whiles, and whilst,

**WHIL'OM**.

mean, during the time

that; at the same time that: to while is to loiter: whilere, a little time or while ago: whilom, formerly; once.

*Whiles* by the experiment of this ministration they glorify God, for your professed subjection unto the gospel.

2 Corinthians, ix.

If my beauty be any thing, then let it obtain this much of you, that you will remain some *while* in this company, to ease your own travel, and our solitariness.

*Sidney.*

Where now the studious lawyers have their bowers.

There *whilom* wont the templar knights abide,

Till they decayed through pride.

*Spenser.*

That cursed wight from whom I 'scaped *whilere*,

A man of hell, that calls himself Despair.

*Id.*

*Whiles* I was protector,

Pity was all the fault that was in me.

*Shakspeare.*

Here lies Hobbinol, our shepherd *whilere*.

We saw him feeding come,

And on his necke a burthen lugging home,

Most highly huge, of sere-wood ; which the pile  
That fed his fire supplie all supper while. *Chapman.*

One while we thought him innocent,  
And then we accused the consul. *Ben Jonson.*

Can he imagine that God sends forth an irresistible  
strength against some sins, *whilst* in others he permits  
men a power of repelling his grace? *Decay of Piety.*

Pausing a *while*, thus to herself she mused. *Milton.*

He who, with all heaven's heraldry, *whilere*  
Entered the world, now bleeds to give us ease. *Id.*

Yet art thou not inglorious in thy fate ;

For so Apollo, with unweeting hand,

*Whilom* did slay his dearly loved mate. *Id.*

That which I have all this *while* been endeavouring  
to convince men to, is no other but what God himself  
doth particularly recommend. *Tillotson.*

What fate has disposed of the papers, 'tis not worth  
*while* to tell. *Locke.*

All hearts should bend, and every voice

In loud applauding shouts rejoice ;

*While* all his gracious aspect praise,

And crowds grow loyal as they gaze. *Addison.*

Men guilty this way never have observed that the  
*whiling* time, the gathering together, and waiting a little  
before dinner, is the most awkwardly passed away  
of any. *Spectator.*

Use your memory ; you will sensibly experience a  
gradual improvement, *while* you take care not to over-  
load it. *Watts.*

WHIM, *n. s.* } Derived by Skinner from  
WHIMSEY, } a thing turning round. A  
WHIMSICAL, *adj.* } freak ; odd fancy ; caprice :  
which whimsey also signifies : and the adjective  
corresponds.

At this rate a pretended freak or *whimsey* may be  
palliated. *L'Estrange.*

In another circumstance I am particular, or, as my  
neighbours call me, *whimsical* : as my garden invites  
into it all the birds, I do not suffer any one to destroy  
their nests. *Addison.*

All the superfluous *whims* relate,

That fill a female gamester's pate. *Swift.*

He learnt his *whims* and high-flown notions too,

Such as fine men adopt, and fine men rue. *Harte.*

WHIMPER, *v. n.* } Germ. *wimberen*. Rather  
WHIMPLED, *adj.* } from *whine*. To cry as a  
child, or without any loud noise : whimpled is  
marked or distorted by crying.

This *whimpled*, whining, purblind, wayward boy.

*Shakspeare.*

The father, by his authority, should always stop this  
sort of crying, and silence their *whimpering*. *Locke.*

A laughing, toying, wheedling, *whimpering* she,

Shall make him amble on a gossip's message. *Rowe.*

She gently *whimpers* like a loving cow. *Swift.*

WHIN, *n. s.* Welsh *chwyn*. Furze ; gorse.

With *whins* or with furzes thy hovel renew. *Tusser.*

WHINE, *v. n. & n. s.* Sax. *anian* ; Belg. *weenen* ;

Goth. *veina*. To lament in low murmurs ; moan ;

*whimper* : a noise of this kind.

They came to the wood, where the hounds were in  
couple staying their coming, but with a *whining* accent  
craving liberty. *Sidney.*

Whip him,

Till, like a boy, you see him cringe his face,

And *whine* aloud for mercy. *Shakspeare.*

The common people have a *whining* tone and accent  
in their speech, as if they did still suffer some oppres-  
sion. *Davies.*

He made a viler noise than swine

In windy weather, when they *whine*. *Hudibras.*

I was not born so base to flatter crowds,

And move your pity by a *whining* tale. *Dryden.*

The favourable opinion of men comes oftentimes by a

few demure looks and affected *whines*, set off with some  
odd devotional postures and grimaces. *South.*

WHINYARD, *n. s.* Sax. *pinnan* and *ape*, to  
gain honor.—Skinner. A sword : in contempt.

He snatched his *whinyard* up, that fled

When he was falling off his steed. *Hudibras.*

WHIP, *v. a., v. n., & n. s.* Sax. *phopane* ; Belg.

WHIPCORD, *n. s.* } *wippen, wip*. To strike

WHIPHAND, } with any thing tough

WHIPPER, } and flexible ; drive by

WHIPPOST, } lashing ; inwrap ; sew ;

WHIPSAW, } lash with sarcasm ; to

WHIPSTER. } take a thing nimbly ;

to move nimbly : a whip is an instrument of lashing

or correction : whipcord, cord of which lashes are

made : whiphand, advantage over : whipper, he

who whips : whippingpost, a post to which criminals

are bound for whipping : whipsaw, a saw used by

joiners : whipster, a nimble fellow.

In Bridewel a number he stript,

Lesse worthise than thesee to be *whipt*. *Tusser.*

There sat infernal Pain,

And fast beside him sat tumultuous Strife ;

The one in hand an iron *whip* did strain,

The other brandished a bloody knife. *Spenser.*

Let's *whip* these stragglers o'er the seas again ;

Lash hence these over-weening rags of France,

These famished beggars. *Shakspeare.*

Since I pluckt geese, played truant, and *whipt* top, I

knew not what it was to be beaten till lately. *Id.*

They would *whip* me with their fine wits, till I was

as crest-fallen as a dried pear. *Id.*

In his lawless fit,

Behind the arras hearing something stir,

He *whipt* his rapier out, and cries, a rat !

And in this brainish apprehension kills

The unseen good old man. *Id.*

Love is merely a madness, and deserves as well a

dark-house and a *whip* as madmen do ; and the reason

why they are not so punished is, that the *whippers* are

in love too. *Id.*

I am not valiant neither

But every puny *whipster* gets my sword. *Id.*

Could not the *whippingpost* prevail,

With all its rhet'rick, nor the jail,

To keep from slaying scourge thy skin,

And ancle free from iron gin ? *Hudibras.*

How did he return this haughty brave

Who *whipt* the winds, and made the sea his slave ?

*Dryden.*

In his right hand he holds the *whip*, with which he is

supposed to drive the horses to the sun. *Id.*

In Raphael's first works are many small foldings,

often repeated, which look like so many *whipcords*. *Id.*

The archangel, when Discord was reative, and would

not be drawn from her beloved monastery with fair

words, has the *whiphand* of her, and draws her out with

many stripes. *Id.*

Two friends, travelling together, met a bear upon the

way ; the one *whips* up a tree, and the other throws

himself flat upon the ground. *L'Estrange.*

This requires more than setting children a task, and

*whipping* them, without any more ado, if it be not done

to our fancy. *Locke.*

The *whipsaw* is used by joiners to saw such great

pieces of stuff that the handsaw will not easily reach

through. *Moxon.*

Its string is firmly *whipt* about with small gut, that

it may the easier move in the edge of the rowler. *Id.*

Oh, chain me ! *whip* me ! let me be the scorn

Of sordid rabbles and insulting crowds !

Give me but life. *Smith.*

Brisk Susan *whips* her linen from the rope,

Whilst the first drizzling shower is born aslope. *Swift.*



WHIRL, *v. a. & n. s.* } Sax. *hpyrgan*; Belg. *wirbelen*. To turn round rapidly; move hastily: a whirlbat is any thing thus moved: whirligig, a toy of this kind: WHIRL'ING, *adj.* } whirlpit and whirlpool.

a vortex: whirlwind, a stormy wind moving circularly: whirring, whirling.

In the fathomless profound  
Down sunk they, like a falling stone,  
By raging *whirlpits* overthrown. *Sandys.*  
He, rapt with *whirling* wheels, inflames the skyen  
With fire not made to burn, but fairly for to shine. *Spenser.*

My thoughts are *whirled* like a potter's wheel:  
I know not where I am, or what I do. *Shakspeare.*  
In the very torrent and *whirlwind* of your passion,  
beget a temperance that may give it smoothness. *Id.*  
Poor Tom! whom the foul fiend hath led through  
ford and *whirlpool*, o'er bog and quagmire. *Id.*  
The *whirlbat's* falling blow they nimblely shun,  
And win the race ere they begin to run. *Creech.*  
He *whirls* his sword around without delay,  
And hews through adverse foes an ample way. *Dryden.*

'Twere well your judgments but in plays did range;  
But even your follies and debauches change  
With such a *whirl*, the poets of your age  
Are tired, and cannot score them on the stage. *Id.*  
The *whirlbat* and the rapid race shall be  
Reserved for Cæsar, and ordained by me. *Id.*  
With *whirlwinds* from beneath she tossed the ship,  
And bare exposed the bosom of the deep. *Id.*  
This calm of heaven, this mermaid's melody,  
Into an unseen *whirlpool* draws you fast,  
And in a moment sinks you. *Id.*  
How the car rattles, how its kindling wheels  
Smoke in the *whirl*: the circling sand ascends,  
And in the noble dust the chariot's lost. *Smith.*  
For though in dreadful *whirls* we hung  
High on the broken wave,  
I know thou wert not slow to hear,  
Nor impotent to save. *Spectator.*  
He found that marbles taught him percussion, and  
*whirligigs* the axis in peritrochio. *Arbutnot and Pope.*

I have been watching what thoughts came up in the  
*whirl* of fancy that were worth communicating. *Pope.*  
From the brake the *whirring* pheasant springs,  
And mounts exulting on triumphant wings. *Id.*  
They have ever been taught by their senses, that the  
sun, with all the planets and the fixed stars, are *whirled*  
round this little globe. *Watts.*

A WHIRLPOOL is an eddy, vortex, or gulf, where  
the water is continually turning round. Those in  
rivers are very common, from various accidents,  
and are usually very trivial, and of little conse-  
quence. In the sea they are more rare, but more  
dangerous. Sibbald has related the effects of a very  
remarkable marine whirlpool among the Orcaades,  
which would prove very dangerous to strangers,  
though it is of no consequence to the people who  
are used to it. This is not fixed to any particular  
place, but appears in various parts of the limits of  
the sea among these islands. Wherever it appears,  
it is very furious; and boats, &c., would inevitably  
be drawn in and perish with it; but the people  
who navigate them are prepared for it, and always  
carry an empty vessel, a log of wood, or large bun-  
dle of straw, or some such thing, in the boat with  
them; as soon as they perceive the whirlpool, they  
toss this within its vortex, keeping themselves out;  
this substance, whatever it be, is immediately re-

ceived into the centre, and carried under water;  
and, as soon as this is done, the surface of the place  
where the whirlpool was, becomes smooth, and they  
row over it with safety; and in about an hour they  
see the vortex begin again in some other place,  
usually at about a mile's distance from the first.  
See MÆLSTROM.

WHISK, *n. s. & v. a.* } German *wischen*, to  
WHISK'ER, *n. s.* } wipe. A small besom  
or brush; part of a woman's dress: to sweep;  
move gently or nimbly: whiskers are the small  
tapering points of the beard.

A sacrifice to fall of state,  
Whose thread of life the fatal sisters  
Did twist together with its *whiskers*. *Hudibras.*

The white of an egg, though in part transparent, yet  
being long agitated with a *whisk* or spoon, loses its  
transparency. *Boyle.*

An easy means to prevent being one farthing the  
worse for the abatement of interest, is wearing a lawn  
*whisk* instead of a point de Venice. *Child.*

A painter added a pair of *whiskers* to the face. *Addison.*

If you break any china with the top of the *whisk* on  
the mantle-tree, gather up the fragments. *Swift.*

WHISPER, *v. n., v. a., & n. s.* } Sax. *hpyrgan*,  
WHISPER'ER, *n. s.* } breath; Belg. *wisperen*;  
*Teut. whisper* is a lisp. To speak with a  
low voice; to speak with suspicion or caution: to  
utter or address in a low voice; prompt: a low,  
soft speech or mode of utterance; he who *whis-*  
*pers*; he who backbites.

All that hate me *whisper* together against me. *Psalms.*  
The court and city were full of *whisperings*, and ex-  
pectation of some sudden change. *Sidney.*  
Give sorrow words; the grief that does not speak  
*Whispers* the o'erfraught heart, and bids it break. *Shakspeare.*

The extension is more in tones than in speech; there-  
fore the inward voice or *whisper* cannot give a tone. *Bacon.*

Kings trust in eunuchs hath rather been as to good  
spials and good *whisperers*, than good magistrates. *Id.*  
Soft *whispers* through the assembly went. *Dryden.*

Strictly observe the first hints and *whispers* of good  
and evil that pass in the heart. *South.*

The steward *whispered* the young Templar, that's  
true to my knowledge. *Tatler.*

They might buzz and *whisper* it one to another, and  
tacitly withdrawing from the apostles, noise it about  
the city. *Bentley.*

It is as offensive to speak wit in a fool's company, as  
it would be ill manners to *whisper* in it: he is dis-  
pleased at both, because he is ignorant of what is said.  
*Pope.*

The hollow *whispering* breeze, the pliant rills  
Purle down amid the twisted roots. *Thomson.*

WHIST, *adj. & n. s.* Called by Skinner an in-  
terjection commanding silence; silent; still; put  
to silence: a game requiring silence. See below.

The wild waves *whist*. *Shakspeare.*  
The winds with wonder *whist*,  
Smoothly the waters kissed,  
Whispering new joys to the mild ocean. *Milton.*

The clergyman used to play at *whist* and swobbers. *Swift.*

*Whist* awhile  
Walks his grave round, beneath a cloud of smoke  
Wreathed fragrant from the pipe. *Thomson.*

WHIST, requiring great silence, owes its name to  
the interjection. This game is played by four per-  
sons, who cut for partners; the two highest and the  
two lowest are together, and the partners sit oppo-

site to each other: the person who cuts the lowest card is to deal first, giving one at a time to each person, till he comes to the last card, which is turned up for the trump, and remains on the table till each person has played a card. The person on the left hand side of the dealer plays first, and whoever wins the trick is to play again, thus going on till the cards are played out. The ace, king, queen, and knave of trumps are called honors; in case any three of these honors have been played between, or by either of the two partners, they reckon for two points towards the game; and, if the four honors have been played between, or by either of the two partners, they reckon for four points towards the game, the game consisting of ten points. The honors are reckoned after the tricks; all above six tricks reckoning also towards the game. Such is the mode of playing whist, which requires so much attention and judgment, that few even of those who practise constantly ever acquire sufficient knowledge of the game to play well. The well-known volume of Hoyle is almost entirely occupied with it; but, as we cannot pretend to copy the whole of his rules, it could serve no purpose to introduce a part. In a book of reference like this, however, it is proper to insert the Laws.

*Of Dealing.*—1. If a card is turned up in dealing, it is in the option of the adverse party to call a new deal; but, if either of them have been the cause of turning up such card, in that case the dealer has his option.

2. If a card is faced in the deal, there must be a new deal, unless it is the last card.

3. Every person ought to see that he has thirteen cards dealt; therefore, if any one should happen to have only twelve, and does not find it out till several tricks are played, and that the rest of the players have their right number, the deal stands good; and also the person who plays with twelve cards is to be punished for each revoke, in case he has made any; but, if any of the rest of the players should happen to have fourteen cards, in that case the deal is lost.

4. The dealer ought to leave in view upon the table his trump card, till it is his turn to play; and, after he has mixed it with his other cards, nobody is entitled to demand what card is turned up, but may ask what is trumps. This consequence attends such a law, that the dealer cannot name a wrong card, which otherwise he might have done.

5. None of the players ought to take up or look at their cards, while any person is dealing; and, if the dealer should happen to miss deal, in that case he shall deal again, unless it arises from his partner's fault; and, if a card is turned up in dealing, no new deal shall be called, unless the partner has been the cause of it.

6. If the dealer, instead of turning up the trump, puts the trump card upon the rest of his cards, with the face downward, he is to lose his deal.

*Of playing out of turn.*—7. If any person plays out of his turn, the card so played may be called at any time in that deal, provided it does not cause a revoke; or either of the adversaries may require of the person who ought to have led, to play the suit the said adversary may choose.

8. A and B are partners against C and D; A plays the ten of a suit, the adversary C plays the knave of the same suit, B plays a small card of the same suit, but, before D plays, his partner C leads

another card, the penalty shall be in the option of A or B to oblige D to win the trick if he can.

9. A and B are partners against C and D; A leads a club, his partner B plays before the adversary C; in this case D has a right to play before his partner C, because B played out of his turn.

10. If the ace, or any other card of a suit, is led and it should so happen that the last player plays out of his turn, whether his partner has any of the suit led or not, provided you do not make him revoke, he is neither entitled to trump it, nor to win the trick.

*Of Revoking.*—11. If a revoke happens to be made, the adversaries may add 3 to their scores, or take 3 tricks from the revoking party, or take down 3 from their score; and the revoking party provided they are up, notwithstanding the penalty, must remain at 9: the revoke takes place of any other score of the game.

12. If any person revokes, and before the cards are turned discovers it, the adverse party may call the highest or lowest card of the suit led, or have their option to call the card then played, at any time when it does not cause a revoke.

13. No revoke to be claimed till the trick is turned and quitted, or the party who revoked, or his partner, have played again.

14. If any person claims a revoke, the adverse party are not to mix their cards, upon forfeiture of the revoke.

15. No revoke can be claimed after the cards are cut for a new deal.

*Of calling honors.*—16. If any person calls at any point of the game, except 8, either of the adverse parties may call a new deal; and they are at liberty to consult each other whether they will have a new deal.

17. After the trump card is turned up, no person must remind his partner to call, on penalty of losing a point.

18. If the trump card is turned up, no honors in the preceding deal can be set up, unless they were before claimed.

19. If any person calls at the point of 8, and his partner answers, and both the opposite parties have thrown down their cards, and it appears that the other side had not two by honors; in this case they may consult with one another about it, and are at liberty to stand the deal or not.

20. And if any person answers when he has not an honor, the adverse party may consult one another about it, and are at liberty to stand the deal or not.

21. If any person calls at 8, after he has played, it shall be in the option of the adversaries to call a new deal.

*Of separating and shewing the cards.*—22. If any person separates a card from the rest, the adverse party may call it, provided he names it, and proves the separation; but, in case he calls a wrong card, he or his partner are liable for once to have the highest or lowest card called in any suit led during the deal.

23. If any person throws his cards on the table with their faces upwards, upon supposition that he has lost the game, the adversaries have it in their power to call any of the cards when they think proper, provided they do not make the party revoke, and he is not to take up his cards again.

24. If any person is sure of winning every trick, he



may shew his cards upon the table; but he is then liable to have all his cards called.

*Of omitting to play to a trick.* 25. A and Bare partners against C and D; A leads a club, C plays the ace of clubs, B plays a club, and D, partner to C, takes up the trick without playing any card; A, and the rest of the players, play on, till it appears D has one card more than the rest: penalty to be in the option of the adversaries to call a new deal.

*Respecting who played any particular card.*—26. Each person in playing ought to lay his card before him; after he has done so, if either of the adverse parties mix their cards with his, his partner is entitled to demand each person to lay his card before him, but not to enquire who played any particular card.

It is a question belonging to this game, what the probability is that a player has a given number of trumps dealt him; particularly it has been often taken as an equal wager, that the dealer has at least four trumps. M. de Moivre has computed the following tables, showing for the dealer as well as the other gamesters what the probability is of taking precisely in one deal any assigned number of trumps. By a continual addition of the numbers, or of such part of them as is necessary, it is easily found what the probability is of taking at least that number.

| Chances of the Dealer to have besides the Card turned up.                             | Trumps. | Chances of any other Gamester to have precisely.                                 |
|---|---------|--|
| Table I.  |         | Table II.  |
| 3910797436  | 0       | 8122425444   |
| 20112672528   | I.      | 46929569232  |
| 41959196136   | II.     | 110619698904   |
| 46621329040   | III.    | 139863987120   |
| 30454255260   | IV.     | 104897990340   |
| 12181702104   | V.      | 48726808416  |
| 3014663652  | VI.     | 14211985788  |
| 455999544   | VII.    | 2583997416   |
| 40714245  | VIII.   | 284999715  |
| 2010580   | IX.     | 18095220   |
| 48906   | X.      | 603174   |
| 468   | XI.     | 8892   |
| 1   | XII.    | 39   |
| Sum=158753389900 is the common denominator; being the combinations of 12 cards in 51. |         | 476260169700= sum is the common denominator; being the combinations of 13 in 51. |

These tables enable us to solve several useful questions; as, 1. If it is asked, what is the probability that the dealer has precisely III trumps, besides the trump card? The answer by Table I. is,  $\frac{4662}{15875}$ ; and the probability of his having some other number of trumps is  $\frac{11213}{15875}$ . But if the question had been, what is the probability that some other gamester, the eldest hand for instance, has precisely IV trumps? the answer, table II., is  $\frac{104898}{476260}$ .

2. To find the chance of the dealer's not having fewer than IV trumps; add his chances to take 0,

I, II, which are 39108, 201127, 419592; and their sum 659827, taken from the denominator 1587534, and the remainder made its numerator, the probability of the dealer having IV or more trumps will be  $\frac{927707}{1587534} = \frac{329}{563}$ , a little above  $\frac{7}{12}$ .

The wager, therefore, that the dealer has not IV trumps, is so far from equal, that whoever lays it throws away above  $\frac{1}{5}$  of his stake.

But, if the wager is, that the dealer has not V trumps, then 466213 (the chances of his having III besides the trump card) is to be added to the chances for 0, I, II; which will make the chance of him who lays this wager to be nearly  $\frac{317}{455}$ ; and that of his adversary  $\frac{138}{455}$ .

And hence, if wagers are laid that the dealer has not IV trumps, and has not V trumps, alternately; the advantage of him who lays in this manner will be nearly  $11\frac{1}{4}$  per cent. of his stakes.

3. To find the odds of laying that the eldest hand has at least III, and at least IV trumps alternately; the numerator of the one expectation is (by Table II.) 31501119, and of the other 17514720, to the denominator 47626017; whence the advantage of the bet will be  $\frac{15}{514}$ , or three per cent. nearly.

Again, if it is laid that the trumps in the dealer's hand shall be either I, II, III, or IV; the disadvantage of this bet will be only 15s. 4d. or about  $\frac{1}{4}$  per cent.

And thus the odds of any proposed bet of this kind may be computed; and, from the numbers in the tables and their combinations, different bets may be found which shall approach to the ratio of equality; or, if they differ from it, other bets may be assigned, which, repeated a certain number of times, shall balance that difference.

4. And if the bet includes any other condition besides the number of trumps, such as the quality of one or more of them; then proper regard is to be had to that restriction. Let the wager be that the eldest has IV trumps dealt him; and that two of them shall be the ace and king. The probability of his having IV trumps precisely is, by Table II.,  $\frac{104898}{476200}$ ; and the different fours in twelve

cards are,  $\frac{12}{1} \times \frac{11}{2} \times \frac{10}{3} \times \frac{9}{4}$ . But, because 2 out of the 12 trumps are specified, all the combinations of 4 in 12 that are favorable to the wager are reduced to the different twos that are found in the remaining ten cards, which are,  $\frac{10}{3} \times \frac{9}{2}$ . And this number is to the former as 1 to 11: the probability therefore is reduced by this restriction to  $\frac{1}{11}$ , of what else it had been: that is, it is reduced

from nearly  $\frac{1}{5}$  to about  $\frac{1}{52}$ . See De Moivre's Doctrine of Chances, p. 172, &c., ed. 3d.

WHISTLE, *v. n.*, *v. a.*, & *n. s.* } Saxon *hwīst*; *hwīstler*, *n. s.* } an; Swedish *hwistla*; Lat. *fistulo*. To form a kind of musical sound by a particular modulation of the breath; to sound shrill: to call by a whistle: the sound or

call made; the organ or instrument of whistling: one who whistles.

The masters and pilots were so astonished that they knew not how to direct; and, if they knew, they could scarcely, when they directed, hear their own *whistle*.

*Sidney.*

I've watched and travelled hard:  
Some time I shall sleep out, the rest I'll *whistle*.

*Shakspeare.*

Madam, here comes my lord.—  
—I have been worth the *whistle*.

*Id.*

Let one *whistle* at the one end of a trunk, and hold your ear at the other, and the sound shall strike so sharp as you can scarce endure it.

*Bacon.*

While the plowman near at hand  
*Whistles* o'er the furrowed land.

*Milton.*

The knight, pursuing this epistle,  
Believed he'd brought her to his *whistle*.

*Hudibras.*

Let's drink the other cup to wet our *whistles*, and so  
sing away all sad thoughts.

*Walton.*

He *whistled* as he went, for want of thought.

*Dryden.*

My sire in caves constrains the wind,  
Can with a breath their clam'rous rage appease;  
They fear his *whistle*, and forsake the seas.

*Id.*

Let him *whistle* them backwards and forwards till he  
is weary.

*South.*

The prize was a guinea to be conferred upon the  
ablest *whistler*, who could *whistle* clearest, and go  
through his tune without laughing.

*Addison.*

When winged deaths in *whistling* arrows fly,  
Wilt thou, though wounded, yet undaunted stay,  
Perform thy part, and share the dangerous day?

*Prior.*

When simple pride for flattery makes demands,  
May duncy by duncy be *whistled* off my hands! *Pope.*

**WHISTON** (William), was born at Norton, near Twycrosse, in Leicestershire, where his father was rector, in 1667. He was admitted of Clarehall, Cambridge, where he afterwards commenced tutor; but his ill health forced him to decline it. Having entered into orders, he, in 1694, became chaplain to Dr. More, bishop of Norwich; and in this station he published a work, entitled *A New Theory of the Earth, &c.*, in which he undertook to prove the Mosaic doctrine of the earth perfectly agreeable to reason and philosophy. In the beginning of the eighteenth century he was made Sir Isaac Newton's deputy, and afterwards his successor, in the Lucasian professorship of mathematics; when he resigned a living he had in Suffolk, and went to reside at Cambridge. About this time he published several scientific works, explanatory of the Newtonian philosophy. About 1710 he adopted Arian principles. He was therefore deprived of his professorship, and banished the university. He nevertheless pursued his scheme, by publishing the next year his *Primitive Christianity Revived*, 4 vols, 8vo, for which the convocation fell upon him very vehemently. On his expulsion from Cambridge, he settled in London; where he continued to write, and to propagate his *Primitive Christianity*, with as much ardor as if he had been in the most flourishing circumstances. In 1721 a subscription was made for the support of his family, which amounted to £470. For though he drew profits from reading astronomical and philosophical lectures, and also from his publications, which were very numerous, yet these of themselves would have been very insufficient; and he was often in great distress. He continued long a member of the church of England, but at last he went over to the Baptists. He wrote *Memoirs of his own Life* and

*Writings*, which contain some curious particulars. He was remarkable for speaking the plainest truths on every occasion, and to persons of every degree, and once reproved queen Caroline for her indecent behaviour in the house of God. He died in 1762.

**WHIT**, *n. s.* Sax. *whit*, a thing; *aphit*, any thing; Swed. *wat*. A point; a jot.

We love, and are no *whit* regarded.

*Sidney.*

Her sacred book with blood ywrit,  
That none could read except she did him teach,  
She unto him disclosed every *whit*.

*Spenser.*

It does not me a *whit* displease,

That the rich all honours seize.

*Cowley.*

It is every *whit* as honourable to assist a good minister, as to oppose a bad one.

*Addison.*

**WHITAKER** (William), D. D., born at Holme in Lancashire, and educated at Trinity College, Cambridge, where he graduated, and became regius professor of divinity, and master of St John's College. He wrote some able works against Popery. He died in 1595.

**WHITAKER** (Rev. John), B. D., was born at Manchester in the year 1735. What school he attended appears not be known. He went early to Oxford, and in due time became a fellow of Corpus Christi College. In 1771 he published in 4to. his *History of Manchester*; a work eminently distinguished for acuteness of research, vigor of imagination, independent sentiment, and correct and various information. As it was the first, perhaps also it was the most perfect of all his works, in matter, arrangement, and style. In 1782 he published, in an 8vo. volume, *Genuine History of the Britons* asserted, which may be considered as a sequel to the history of Manchester. In both works the history of our island is elucidated by the hand of a master. In the latter he particularly refutes Macpherson's Introduction to the History of Great Britain and Ireland, which is disfigured by mistakes and misrepresentations. In 1773 Mr. Whitaker was morning preacher at Berkeley chapel, from which he was removed in the following year. During his residence in the metropolis, he became acquainted with most of the celebrated writers of the time, particularly with Johnson and Gibbon. By the latter the manuscript of the first volume of the *Decline and Fall of the Roman Empire* was submitted to Mr. Whitaker's perusal. The manuscript did not contain the chapter which gave such just offence to the Christian world. The historian it seems did not dare to expose it to his censure. The fact is curious and important. Mr. Whitaker was about this time offered a living by a Unitarian patron, with the view of influencing his principles. He was without preferment, but he spurned the temptation, and pitied the seducer. In 1778 he succeeded in right of his fellowship to the rectory of Ruan Langholme, in Cornwall, one of the most valuable livings in the gift of his college; and thither he went immediately to reside. In 1783 he published *Sermons upon Death, Judgment, Heaven, and Hell*. He published also, in a large 8vo., the *Origin of Arianism*, a controversial work of great erudition and powerful argument. The *Real Origin of Government* (a treatise expanded from a sermon preached at the primary visitation of bishop Butler), and the *Introduction to Flindell's Bible*, are his only other works in the line of his profession, of which at least we have heard. In 1787 he published, in 3 vols. 8vo., *Mary Queen of Scots*; and seems to have carried on his antiquarian re-



searches with peculiar industry, of which he printed, 1. The Course of Hannibal over the Alps. 2. Ancient Cathedral of Cornwall; and 3. Supplement to Mr. Polewhele's Antiquities of Cornwall. His London and his Oxford remain in manuscript; but whether they are fit for publication we know not. Besides these great works, the public are indebted to Mr. Whitaker for many valuable articles of periodical criticism in the English Review, in the British Critic, and in the Antijacobin Review. His review of Gibbon, which, though severe, is just and able, and even candid, added greatly to the reputation of the English Review. Mr. Whitaker was a man evidently of strong passions, and of a warm imagination; but, even in those anonymous articles of periodical criticism, we find him generally candid and good natured; if not sparing of censure, nor lavish of applause, we find him generally just, often generous, and always benevolent. The nature and the force of his principles particularly appear in those articles in which he combats the enemies of our civil and ecclesiastical constitution. In addition to all his other literary qualifications, Mr. Whitaker was a poet, and contributed some valuable pieces to the Cornwall and Devon poets. As a minister of the gospel, Mr. Whitaker was zealous in principle, and sincere in the practice of all that he professed. He was irritable; and this failing, added to great ignorance of the world, was sometimes destructive of his social comfort; but he was in fact good-humored, hospitable, and benevolent; and his loss will long be lamented by his family, his parishioners, and the learned world. He died in 1808 at the age of seventy-three; and his death was evidently hastened by a journey to London, and by his vast exertions there in procuring information for his work on the Antiquities of that vast metropolis. His decline at length was gradual, and his death (of which he was perfectly aware) such as became a Christian, at peace with himself, with his fellow-creatures, and, through the merits of the Redeemer in whom he trusted, with his God.

WHITBREAD (Samuel), for many years a leading member of the house of commons, was the son of an eminent brewer of the same name. He was born in London in 1758, was educated at Eton, whence he removed to St. John's College, Cambridge, after which he made the tour of Europe under the care of Mr. (afterwards archdeacon) Coxe. Soon after his return he married the daughter of Sir Charles (afterwards earl) Grey, and in 1790 was returned to the house of commons for the borough of Steyning. For the greater part of his career, however, he represented the town of Bedford, in which borough and county he possessed a large landed property. For many years he was esteemed one of the most shrewd and vigorous opponents of the Pitt administration, and of the war growing out of the French revolution. He was also the conductor of the impeachment against lord Melville, which, although terminating in acquittal, threw a shade over the close of that statesman's life, and proved a source of extreme concern to the administration. The close of his life was most melancholy; an over-anxious attention to business in general, but more especially to the intricate concerns of Drury Lane Theatre, produced a temporary aberration of intellect, during which he cut his throat, July 6th, 1815.

WHITBY (Daniel), D.D., a learned English

divine, born in 1638, and bred at Oxford; where, in 1664, he was elected perpetual fellow of his college. He afterwards became chaplain to Dr. Seth Ward, bishop of Salisbury; who collated him in 1668 to the prebend of Yatesbury in that church, and soon after to that of Husborn and Burbach. In 1672 he was admitted chaunter of the said church, and rector of St. Edmund's, Salisbury. He was made a prebendary of Taunton-Regis in 1696, and died in 1726. He was ever strangely ignorant of worldly affairs. His writings are numerous and well known, particularly his Commentary on the New Testament.

WHITBY, a sea-port, borough-town, and parish, in the liberties of Whitby-Strand, North Riding of Yorkshire, twelve miles N. N. West of Scarborough, and 242½ north by west of London. It stands on the banks of the Eske, which forms its harbour, and divides the town into two nearly equal parts, connected by a draw-bridge, which will admit ships of 500 tons to pass. The houses are strongly built of rough stone, and some of them are spacious and elegant. The town-hall is a heavy pile of the Tuscan order. The custom-house is a commodious building, well adapted to its purpose. The principal public charities and institutions are the dispensary, and the schools on the British plan for the education of youth of both sexes. This is a town of great antiquity, and appears to have had a convent founded in the seventh century, by Oswy, king of Northumberland, afterwards burnt by the Danes, but rebuilt with great splendor, and continued till the general dissolution. Whitby had also formerly a splendid abbey, of which the venerable ruins are now very inconsiderable. It now sends one member to parliament; and carries on a trade in coals and alum works. In 1787 a strong new built quay, supporting a pile of buildings, eighty feet above the level of the sea, was destroyed, and the venerable old church belonging to its ancient convent, standing on a cliff about thirty yards distant, nearly shared the same fate. In the town are a chapel of ease, and many meeting houses for dissenters. The entrance to the harbour is now secured by two handsome and substantial stone piers. Ship building is here carried on to a very considerable extent. On the east side of the harbour the cliffs are nearly 180 feet perpendicular above the level of the sea. The shore consists of a smooth flat rock, resembling slate, called by the inhabitants Scarr. Many curiously shaped stones, petrifications, bones, and shells, are found in the strata. Market on Saturday.

WHITE, *adj.*, *n. s.*, & *v. a.*

WHITE'LEAD, *n. s.*

WHITE'LY, *adj.*

WHITE MEAT, *n. s.*

WHIT'EN, *v. a.* & *v. n.*

WHITE'NESS, *n. s.*

WHITE'WASH,

WHITE'WINE,

WHIT'ISH, *adj.*

WHIT'ISHNESS, *n. s.*

WHITE'LEATHER.

Sax. hƿit; Belg.

wit; Swedish *hvit*.

Having the color or

appearance that

arises from the mixture

of all colors;

snowy; pale; pure;

gray; whiteness,

any thing white;

white spot or color;

the white part of

any thing, as of the eye, an egg, &c.: to white or whiten is to make white: and whiten, as a verb neuter, to grow white: whitelead, a white calx o. lead: whitely and whitish, approaching in color to white: whitemeat, food made of milk: whitewash, is a wash of this hue for the skin or for walls:

whitewine and whiteleather, wine and leather of a light or white appearance: whiteness corresponds with the adjective.

Like unto *whited* sepulchres, which appear beautiful outward, but are within full of dead men's bones.

Matthew.

His raiment became shining, exceeding *white* as snow; so as no fuller on earth can *white* them. Mark.

Whole bridle and saddle, *whiteth*er and nal, With collars and harnais.

Tusser.

This doth lead me to her hand,  
Of my first love the fatal band,  
Where *whiteness* doth for ever sit;  
Nature herself enamelled it.

Sidney.

The Irish, banished into the mountains, lived only upon *whitemeats*.

Spenser.

A *whitely* wanton, with a velvet brow,  
With two pitch balls stuck in her face for eyes. Shak.  
My hands are of your color, but I shame  
To wear a heart so *white*.

Id.

Our general himself  
Sanctifies himself with 's hands,  
And turns up the *white* o' the eye to his discourse.

Shakspeare.

He bored the nerves through, from the heel to the ankle, and then knit  
Both to his chariot with a thong of *whiteleather*.

Chapman.

Wert thou that sweet smiling youth?  
Or that crown'd matron sage, *white-robed* Truth?

Milton.

The smoke of sulphur will not black a paper, and is commonly used by women to *whiten* tiffanies. Browne.

The same aqua-fortis that will quickly change the redness of red lead into a darker color, will, being put upon crude lead, produce a *whitish* substance, as with copper it did a bluish.

Boyle.

What principle manages the *white* and yolk of an egg into such a variety of textures, as is requisite to fashion a chick?

Id.

As little as a *whitethorn* and pear-tree seem of kin, a cion of the latter will sometimes prosper well, being grafted upon a stock of the former.

Id.

Flax the soil and climate are proper for *whitening*, by the frequency of brooks, and also of winds. Temple.

If a mark be set up for an anchor at a great distance, let him aim as exactly as he can, the least wind shall take his arrow, and divert it from the *white*. Dryden.

*White* as thy fame, and as thy honour clear;  
And let new joys attend on thy new-added year. Id.  
The honey or pellucid coat of the eye doth not lie in the same superficies with the *white* of the eye, but riseth up, as a hillock, above its convexity.

Ray.

The bark expects its freight;  
The loosened canvas trembles with the wind,  
And the sea *whitens* with auspicious gales.

Smith.

The clergy, during Cromwell's usurpation, were very much taken up in reforming the female world. I have heard a whole sermon against a *whitewash*.

Addison.

Striking her cliff, the storm confirms her power;  
The waves but *whiten* her triumphant shore. Prior.

*White-lead* is made by taking sheet-lead; and having cut it into long and narrow slips, they make it up into rolls, but so that a small distance may remain between every spiral revolution, &c.

Quincy.

When the paper was held nearer to any colour than to the rest, it appeared of that colour to which it approached nearest; but when it was equally, or almost equally, distant from all the colours, so that it might be equally illuminated by them all, it appeared *white*.

Newton.

The seeds and roots are to be cut, beaten, and infused in *white-wine*.

Wiseman.

Whether the darkened room to muse invite,  
Or *whitened* wall provoke the skaver to write;  
In durance, oxile, Bedlam, or the Mint,  
Like Lee or Budgell, I will rhyme and print. Pope.

Unhappy Dryden! in all Charles's days, Roscommon only boasts unspotted lays; And in our own, excuse some courtly stains, No *whiter* page than Addison's remains. Id.

Now, governor, I see that I must blush  
Quite through this veil of night a *whitely* shame,  
To think I could design to make those free,  
Who were by nature slaves. Southern.

Four rooms above, below, this mansion graced,  
With *white-wash* decked, and river-sand o'er-cast.

Harte.

WHITE (Francis), was educated at Cambridge. He became almoner to king James I., then dean and bishop of Carlisle, and in 1631 bishop of Norwich. He died in 1637. He was famous for his writings against Popery, and for his conference with Fisher the Jesuit, in presence of king James in 1624.

WHITE (Jeremiah), a nonconformist divine, was fellow of Trinity College, Cambridge, and chaplain to Oliver Cromwell. He lived privately long after the Restoration, and wrote a work on the Restoration of all Things, wherein he supports the doctrine of universal redemption. He died in 1737.

WHITE (Robert), an eminent English engraver, who acquired his art under Loggan. He engraved a vast number of portraits and frontispieces for books, and was very correct in his likenesses. He died in 1704.

WHITE (Thomas), D. D., an eminent divine, born at Bristol early in the sixteenth century. He studied at Magdalen Hall, Oxford, in 1566. He became rector of St. Gregory and St. Dunstan; prebendary of St. Paul's; treasurer of Salisbury church, and canon of Windsor. He published Sermons, but is most respectable for his charities; as he founded an alms-house at Bristol, a lectureship at Oxford, and made a liberal bequest to Sion for the London clergy. He died in 1623.

WHITE (Thomas), or Thomas Albus, his Latin name, a philosopher and divine of the Roman church, born in Essex. He was intimate with Hobbes, though their systems were opposite. His works are remarkable for trifling subtleties. He died in 1676.

WHITE (Thomas), a learned English divine, who became lecturer of St. Andrew's Holborn. He published a pious work on The Art of Divine Meditation, 8vo.

WHITE (Gilbert), a writer on natural history and antiquities, was born at Selborne in 1720; studied at Oriel College, Oxford, where he obtained a fellowship in 1744; and took the degree of M. A. in 1746. In 1752 he filled the office of senior proctor of the university. He afterwards fixed his residence in his native village, devoting his leisure to literature. The fruit of his researches appeared in his Natural History and Antiquities of Selborne, 1789, 4to., of which a German translation was published at Berlin in 1792. He died in 1793. A Naturalist's Calendar, extracted from his papers, was published posthumously; and this was reprinted in a collection of his works on natural history, 1802, 2 vols. 8vo.

WHITE (Henry Kirke), a highly gifted youthful poet, was born at Nottingham, March 21st, 1785, and was the son of a butcher. The delicacy of his constitution occasioned him to be designed for the sedentary employment of a stocking weaver; but from his infancy he manifested an extraordinary love of learning. He was at length removed from the stocking loom to an attorney's office and de-



voted his spare time to the study of Latin and Greek, until increase of knowledge inspired him with the desire to obtain more favorable opportunities for improving his talents; and a university education for the church became the great object of his ambition. Through the generosity of Mr. Wilberforce, and the Rev. Charles Simeon, he was admitted a student of St. John's College, Cambridge, where he applied to his studies with such unremitting labor that his health became deranged, and he died October 19th, 1806, deeply lamented. He published in 1803 a poem called *Clifton Grove*, and after his death his Remains, consisting of Poems, Letters, and Fragments, were edited by Dr. Southey in 2 vols. 8vo.

**WHITE BEAR LAKE**, a lake of North America, out of which proceed some of the head waters of the Mississippi. Carver supposes it to be the most northern of any which supply that great river. But subsequent travellers have discovered the source of the Mississippi to be in several lakes farther to the north. Long.  $95^{\circ} 30' W.$ , lat.  $46^{\circ} 50' N.$

**WHITE EARTH RIVER**, a river which empties itself into the Missouri from the north. Before it reaches the low-grounds near the Missouri this river is a fine bold stream, sixty yards wide, deep, and navigable; but it is so much choked up at the entrance by the mud of the Missouri, that its mouth is no more than twenty yards wide. Its course, as far as captains Lewis and Clarke could discern from the neighbouring hills, is nearly due north through a beautiful and fertile valley, though without a tree or bush. It has steep banks, about ten or twelve feet high, and the water is much clearer than that of the Missouri. The salts also, which have been mentioned as common on the Missouri, are here so abundant, that in many places the ground appears perfectly white. It is navigable almost to its source, supposed nearly to extend to  $50^{\circ}$  of N. lat.

**WHITE MOUNTAINS**, or White Hills, a range of mountains in New Hampshire, North America; eighteen or twenty miles long, and eight or ten broad. The base of the mountains is about twenty-five miles south-east of Lancaster; and Mount Washington, the highest summit, is seventy miles in a right line north of Concord, and eighty-two north by west of Portsmouth. Long.  $71^{\circ} 20' W.$ , lat.  $44^{\circ} 15' N.$  In the western pass of these mountains there is a remarkable gap, called the Notch. These mountains have been ascended by different routes. The course which is usually considered as attended with the least difficulties, is that which commences at the plain of Conway, and follows the course of Ellis River, a northern branch of the Saco, having its origin high in the mountains. The view from the summit is rendered wonderfully grand and picturesque, by the magnitude of the elevation, the extent and variety of the surrounding scenery, and above all by the huge and desolate pile of rocks, extending to a great distance in every direction. These mountains are covered with snow nine or ten months in the year, and derive their name from their white appearance. They are seen many miles off at sea, and a person when on their summit has a distinct view of the Atlantic Ocean, the nearest part of which is sixty-five miles distant in a direct line. The limit of forest trees is at the height of 4428 feet. The sides are composed of micaceous schistos, and the summit of gneiss.

The elevation of Mount Washington was formerly estimated at 10,000 or 11,000 feet; but late computations, founded on barometrical observation, have much reduced it; one making it 7108 another 6634, another 6234, another 6225, and another 6103.

The following table exhibits the elevation of the several peaks according to the measurement of captain A. Partridge.

|                       | Feet above<br>the sea. | Feet above<br>the base. |
|-----------------------|------------------------|-------------------------|
| Mount Washington      | 6234                   | 4464                    |
| Second peak           | 5328                   | 3554                    |
| Third peak            | 5058                   | 3288                    |
| Fourth peak           | 4866                   | 3096                    |
| Fifth peak            | 4711                   | 2941                    |
| Sixth peak            | 4356                   | 2586                    |
| Base of the mountains | 1770                   |                         |

**WHITE SEA**, called by the Russians Bieloe More, a great gulf of the Northern Ocean, which may be said to penetrate into the Russian territory, to a depth of 300 or 400 miles. Its shape is long and narrow; its greatest extent from west to east. The White Sea extends from long.  $32^{\circ}$  to  $46^{\circ} E.$ , and from lat.  $63^{\circ} 45'$  to  $68^{\circ} 25' N.$

**WHITEFIELD** (George), A. B., the celebrated field-preacher, and the founder of the sect of Calvinistic methodists, was born in 1714, at Gloucester. At about twelve years of age he was put to a grammar-school, but his mother keeping a tavern, he, about fifteen, served her as a waiter. Next year he got admitted servitor in Pembroke College, Oxford. Here he distinguished himself by the austerities of his devotion. At the age of twenty-one, the fame of his piety recommended him so effectually to Dr. Benson, then bishop at Gloucester, that he ordained him. Immediately after his admission into the ministry, Mr. Whitefield applied himself to the most extraordinary, indefatigable duties of his character, preaching daily in prisons, fields, and open streets, wherever he thought there would be a likelihood of making proselytes. Having at length made himself universally known in England, he embarked for America, where the tenets of Methodism began to spread very fast under his friends the Wesleys; and first determined upon the institution of the orphan house at Georgia, which he afterwards effected. After a long course of peregrination his fortune increased as his fame extended among his followers, and he erected two very extensive buildings for public worship, under the name of tabernacles; one in Tottenham Court Road and the other near Moorfields. Here, with the help of some assistants, he continued for several years attended by very crowded congregations, and quitting the kingdom only occasionally. Mr. Whitefield, by being chaplain to the countess dowager of Huntingdon, was also connected with two other religious meetings, one at Bath, and the other at Tunbridge, chiefly erected under that lady's patronage. By a lively, fertile, and penetrating genius, by the most unwearied zeal, and by a forcible and persuasive delivery, he never failed of the desired effect upon his ever crowded and admiring audiences. America, however, which always engaged much of his attention, was destined to close his eyes; and he died at Newberry, about forty miles from Boston in New England in 1770.

**WHITEHAVEN**, a sea-port and borough town in the parish of St. Bees, Allerdale ward, above Durwent, Cumberland, lying on a bay of the Irish



Sea, five miles north by west from Egremont, and 307 north-west of London. The town is recorded to have contained only six houses in 1566: it owes its present thriving condition to the improvement in its harbour, during the reign of queen Anne. The piers or moles have since been greatly enlarged, and further additions and improvements are in contemplation. Here are three churches, St. James's, the Trinity, and Hold Church; several meeting-houses for various sectaries, a public dispensary, charity schools, and a theatre, &c. Besides the extensive coal mines in the vicinity, some of which are 130 fathoms deep, and in many places a considerable way under the sea, here are copperas-work, breweries, yards for ship-building, sail-cloth manufactories, and three large roperies. A steam packet plies during the summer between this port, Liverpool, and Dumfries. On both the old and new quay are erected light houses, and the entrance of the harbour is defended by a fort and half moon battery. This port has a custom house, with regular officers attached to it, and the coal trade is reckoned the most eminent in England, next to Newcastle. In March 1793 this town suffered by a storm, when the tide rose six feet above its usual height. It sends one member to parliament.

**WHITEHEAD** (Paul), a poet and satyrist, born at Westminster in 1710, where he received a liberal education. The first of his pieces which attracted attention were, *The State Dunces*, 1733, and 2. *Manners*, a satire, 1738: 3. *Honor*, a satire, 1747; 4. *The Gymnasiad*, a mock heroic poem, 1748; a well timed satire on the brutal custom of boxing. His friend and patron, lord le Despencer, procured him a place of £800 a year, which he held for life. He died in 1774.

**WHITEHEAD** (William), a poet and dramatic writer, the son of a baker, born at Cambridge in 1715. He was admitted in 1735 a sizar, and in 1742 a fellow of Clare Hall College. He attended the sons of the earls of Harcourt and Jersey on their travels. On his return he published the *Roman Father*, a tragedy, 1750; *Creusa*, another, in 1754. *Fatal Constancy*. *The School for Lovers*, a comedy. *A Trip to Scotland*, a farce, and other pieces. In 1755 he was appointed poet laureat; and died in 1785, aged seventy.

**WHITEHURST** (John), F. R. S., was the son of a watchmaker, born at Congleton in Cheshire, in 1713. In 1734 he went to Dublin, on purpose to see a curious clock he had heard of. He took lodgings in the house, where the clock was closely secured from all inspection. He, however, made way to it, inspected its machinery, and retired undetected. He returned to England, and settled at Derby, where he made the clock of the town hall, and the clock and chimes of the beautiful tower of All Saint's Church. He was appointed stamper of the money weights at the mint; on which he came to London, where his house soon became the resort of all men of science. In 1778 he published his *Enquiry into the Original State and Formation of the Earth*. In 1779 he was elected F. R. S. In 1786 he republished his *Enquiry*, with improvements, in 1 vol. 4to. He also published *An Attempt towards obtaining invariable measures of Length, Capacity, and Weight, from the mensuration of time*, in 8vo.; besides several papers in the *Philosophical Transactions*. He died in London in 1788.

**WHITELOCKE** (Sir James), LL. B., a learned

lawyer, born in London in 1570, and educated at Merchant Tailor's School, and St. John's College, Oxford, where he graduated in 1594. He entered in the Middle Temple, and in 1620 was chosen M. P. for Woodstock. He was made chief justice of Chester, and afterwards of the king's bench; and was knighted. His works consist of *Lectures in the Middle Temple*, and *Speeches in Parliament*. He died in 1632, aged sixty-two.

**WHITELOCKE** (Sir Bulstrode), son of Sir James, was born in 1605; educated at London and Oxford, whence he went to the middle temple. In the long parliament he was M. P. for Marlow, and was appointed chairman of the committee for prosecuting the earl of Strafford, against whom he was very zealous. He was a member of the assembly of divines at Westminster, and in 1647 was a commissioner of the great seal. In 1653 he was sent ambassador from the Commonwealth to Sweden; and on his return was made a commissioner of the treasury. In 1656 he was chosen speaker of the house of commons; and in 1653 a member of Cromwell's house of lords. In 1659 he was made president of the council of state, and keeper of the great seal. He died at Chilton, Wilts, in 1676. He wrote 1. *Monarchy the best, most ancient, and legal Form of Government*, 8vo. 2. *Memorials of English Affairs*, fol., 1682. 3. *Speeches*, &c.

**WHITGIFT** (John), D. D., an eminent prelate, was born at Great Grimsby, in Lincolnshire, in 1530; educated at Queen's College and Pembroke Hall, Cambridge. In 1560 he took orders, and became chaplain to bishop Cox of Ely, who gave him a living. In 1563 he was appointed lady Margaret's professor of divinity, and restored order in the university. In 1567 he was made master of Trinity College; in 1573 dean of Lincoln; in 1576 bishop of Worcester; and in 1583 archbishop of Canterbury. He was a great favorite with queen Elizabeth, and founded an hospital at Croydon. He died at Lambeth in 1604. He wrote several valuable tracts in defence of the discipline, constitution, and liturgy of the church of England against Cartwright, whom he also befriended in a manner not common among controversialists.

**WHITHER**, *adv.* } Sax. *hpyðen*. To what  
**WHITHERSOEVER**. } place? interrogatively, or  
 absolutely; to which place; to what degree? to  
 whatsoever place.

*Whither* when as they came, they fell at words,  
 Whether of them should be the lord of lords. *Spenser*  
 Sister, well met; *whither* away so fast? *Shakespeare*.  
*Whither* at length wilt thou abuse our patience?  
 Still shall thy fury mock us? *Ben Jonson*.

For whatever end faith is designed, and *whithersoever*  
 the nature and intention of the grace does drive us,  
 thither we must go, and to that end we must direct all  
 our actions. *Taylor*.

That lord advanced to Winchester, *whither* sir John  
 Berkley brought him two regiments more of foot.

*Clarendon*.  
 I strayed I knew not *whither*. *Milton*.  
 Ah! *whither* am I hurried? ah! forgive,  
 Ye shades, and let your sister's issue live. *Dryden*.

**WHITING**, *n. s.* Belg. *witting*. A small sea-  
 fish.

Some fish are gutted, split, and kept in pickle, as  
*whiting* and mackerel. *Carew*.  
 Some fishes, as *whittings*, can be almost entirely dis-  
 solved into water. *Arbushnot*.

**WHITLOW**, *n. s.* Sax *hpyt*, and loup, a wolf.



—Skinner. Sax. *þeirt*, and low, a flame.—Lye. A swelling between the cuticle and cutis, called the mild whitlow; or between the periosteum and the bone, called the malignant whitlow.

Paronychia is a small swelling about the nails and ends of the fingers, by the vulgar people generally called *whitflaw*. *Wiseman.*

WHITSUN FARTHINGs, otherwise called smoke farthings, or quadrantes Pentecostales, a composition for offerings which were anciently made in Whitsun-week by every man in England, who occupied a house with a chimney, to the cathedral church of the diocese in which he lived.

WHITSUNDAY, a solemn festival of the church, observed on the fiftieth day after Easter, in memory of the descent of the Holy Ghost upon the apostles in the visible appearance of fiery cloven tongues, and of those miraculous powers which were then conferred upon them. It is called Whitsunday or White Sunday, because, this being one of the stated times for baptism in the ancient church, those who were baptised put on white garments, as types of that spiritual purity they received in baptism. As the descent of the Holy Ghost upon the apostles happened upon the day which the Jews called Pentecost, this festival retained the name of Pentecost among the Christians. See PENTECOST.

WHITSUNTIDE, *n. s.* White and Sunday; because the converts newly baptised appeared from Easter to Whitsuntide in white.—Skinner. The feast of Pentecost.

Strephon, with leafy twigs of laurel tree,  
A garland made on temples for to wear;  
For he then chosen was the dignity  
Of village lord that *Whitsuntide* to bear. *Sidney.*

And let us do it with no shew of fear;  
Nor with no more than if we heard that England  
Were busied with a *Whitsun* morrice dance. *Shaksp.*

This they employ in brewing and baking against  
*Whitsuntide*. *Curew.*

WHITTINGTON (Sir Richard), a rich citizen of London, who flourished in the reigns of Richard II., Henry IV., and Henry V., and was knighted. He was three times elected lord mayor; the last time in 1419. Being very successful in foreign trade, he amassed a fortune. He built Newgate, part of St. Bartholomew's Hospital, and erected the library in Grey Friars, now called Christ's Hospital. He also built part of Guildhall, with the chapel and depository for the city records.

WHITTINGTON (Robert), a learned teacher, born at Lichfield, and educated at Oxford. He published a Latin Grammar in 4to., in 1500; and several other tracts in Latin, on Philology, &c. He died in 1530.

WHIT'TLE, *n. s. & v. a.* Sax. *þeytel*. A knife: to edge; sharpen.

He wore a Sheffield *whittle* in his hose. *Betterton.*  
When they are come to that once, and are thoroughly  
*whittled*, then shall you have them cast their wanton  
eyes upon men's wives. *Hahevill.*

WHITWORTH (Charles), earl, was descended of an ancient family in Staffordshire, one of the members of which had been ennobled for his diplomatic services in 1720. The subject of this article was born in 1754 at Leoburne-grange, Kent, the seat of his father Sir Charles Whitworth, and was educated at Tunbridge grammar-school. He early obtained a commission in the guards; but, the example of his ancestor appearing to point out diplomacy as a

sure road to distinction, he quitted the army, and, after going rapidly through several subordinate situations, was appointed in 1786 minister plenipotentiary to the court of Poland. Recalled in the autumn of 1788, Mr. Whitworth proceeded in the same capacity to St. Petersburg, where in 1793 he received the red riband of the bath. On his return to England, in 1800, Sir Charles was created baron Whitworth of the kingdom of Ireland, and soon after again despatched on an embassy to the court of Denmark. An adjustment which proved but short lived took place through his exertions in August, and the ambassador returned home. In the following April he married the duchess dowager of Dorset. After the treaty of Amiens, lord Whitworth, having been previously created a privy counsellor, was accredited as plenipotentiary to Paris, and is admitted to have conducted himself with equal spirit, firmness, and moderation, till his mission terminated abruptly in the renewal of hostilities. He quitted the French capital May 13th, 1803. Lord Whitworth now retired to Knowle in Kent, the family seat of the Sackvilles, into the temporary possession of which he had come in right of his wife, and there exerted himself in raising, at his own expense, a troop of yeoman cavalry. In the spring of 1813 he was made one of the lords of the bedchamber, and the year following took his seat in the house as an English peer by the title of viscount Whitworth of Adbaston. In August of 1814 he succeeded the duke of Richmond as viceroy of Ireland, which high dignity he enjoyed till 1817, when, the usual period of office being expired, he returned to England, having been in the interval advanced to an earldom. Lord Whitworth, who united much private worth to unquestioned talent, died at Knowle, after an illness of three days' duration, May 13th, 1825.

WHIZ, *v. n.* From the sound. To make a loud humming noise.

The exhalations, *whizzing* in the air,  
Give so much light that I may read by them. *Shaksp.*

Turn him about;  
I know him, he'll but *whiz*, and straight go out.

*Dryden.*

WHO, *pronoun*, } Genitive whose; other  
WHOM, } cases whom. Sax. *hpa*; Belg.  
WHOMSOEVER, } *wie*. A pronoun relative,  
WHO'SO, } applied to persons: it is  
WHO'SOEVER. } often used interrogatively:  
whoso and whosoever, is any one soever.

Who is this that darkeneth counsel by words without knowledge? *Job.*

In the grave *who* shall give thee thanks? *Psalms.*  
Whose soever sins ye remit, they are remitted; and  
whose soever sins ye retain, they are retained. *John.*

Whoever doth to temperance apply  
His steadfast life, and all his actions frame,

Trust me shall find no greater enemy,  
Than stubborn perturbation to the same. *Spenser.*

Were the graced person of our Banquo present,  
Whom I may rather challenge for unkindness,  
Than pity for mischance. *Shakspere.*

Thy name affrights me, in *whose* sound is death. *Id.*  
*Whoso* is out of hope to attain to another's virtue  
will seek to come at even hand, by depressing another's  
fortune. *Bacon.*

We have no perfect description of it, nor any know-  
ledge how, or by *whom*, it is inhabited. *Abbot.*

Who first seduced him to that dire revolt?  
The' infernal serpent. *Milton*

He inclosed  
Knowledge of good and evil in this tree,  
That *who*so eats thereof forthwith attains  
Wisdom. *Id.*

We are still as much at a loss *who* civil power be-  
longs to. *Locke.*

*Who*soever hath Christ for his friend, shall be sure of  
counsel; and *who*soever is his own friend, will be sure  
to obey it. *South.*

Those darts *whose* points make gods adore  
His might, and deprecate his power. *Prior.*

WHOLE, *adj.* & *n. s.* } Sax. *palg*; Belgic  
WHOLESALE, *n. s.* & *adj.* } *heel*; Swedish *hel*;  
WHOLE'SOME, *adj.* } Gothic *all*, *oll*. All;  
WHOLE'SOMELY, *adv.* } total; containing all;  
WHOLE'SOMENESS, *n. s.* } complete; uninjured;  
WHOLLY, *adv.* } sound; healthy; re-

stored to health: as a noun substantive, the totality;  
the system: the adverb wholly corresponding:  
wholesale is sale in the mass; the whole mass: as  
an adjective, dealing in masses or large quantities:  
wholesome is sound; healthy; contributing to health;  
useful: the adverb and noun substantive corres-  
ponding.

When they had done circumcising all the people,  
they abode in the camp till they were *whole*. *Joshua.*  
Anguish is come upon me, because my life is yet  
*whole* in me. *2 Samuel.*

Fear God, and keep his commandments, for this is  
the *whole* of man. *Ecclesiastes.*

The thrust was so strong, that he could not so *wholly*  
beat it away, but that it met with his thigh, through  
which it ran. *Sidney.*

I cannot make you a *wholesome* answer: my wit's  
diseased. *Shakspeare.*

All the *whole* army stood agazed at him. *Id.*

Metals are *wholly* subterranean. *Bacon.*

'Tis I my glory account,  
My exaltation, and my *whole* delight. *Milton.*

Night not now, as ere man fell,  
*Wholesome*, and cool, and mild; but with black air  
Accompanied, with damps and dreadful gloom. *Id.*

We made a standard of the healthfulness of the air,  
from the proportion of acute and epidemical diseases,  
and of the *wholesomeness* of the food from that of the  
chronical. *Graunt.*

Would'st thou be soon destroyed, and perish *whole*,  
Trust Maurus with thy life, and Milbourne with thy  
soul. *Dryden.*

By turns they quit their ground, by turns advance;  
Victors and vanquished in the various field,  
Nor *wholly* overcome, nor *wholly* yield. *Id.*

At Tonson they shewed us a great fountain of water,  
that is in great esteem for its *wholesomeness*; weighing  
two ounces in a pound less than the same measure of  
the lake water. *Addison.*

These are *wholesale* chapmen to Satan, that do not  
truck and barter one crime for another, but take the  
*whole* herd. *Government of the Tongue.*

She held it *wholesomer* by much  
To rest a little on the couch. *Prior.*

So the doctrine contained be but *wholesome* and edi-  
fying, a want of exactness in speaking may be over-  
looked. *Atterbury.*

Begin with sense, of every art the soul,  
Parts answering parts shall slide into a *whole*. *Pope.*

There is a metaphysical *whole*, when the essence of a  
thing is said to consist of two parts, the genus and the  
difference, i. e. the general and the special nature,  
which, being joined together, make up a definition. *Watts.*

The' Almighty power,  
Who feeds the faithful at his chosen hour,  
Consults not taste, but *wholesomeness* of food,  
Nor means to please their sense, but do them good. *Hevle.*

WHOO'BUB, *n. s.* Hubbub. See HUBBUB

Had not the old man come in with a *whoobub* against  
his daughter, and scared my choughs from the chaff, I  
had not left a purse in the whole army. *Shakspeare.*

WHOOOP, *n. s.*, *v. n.*, & *v. a.* See HOOP. A  
shout of pursuit: to shout with malignity: insult  
with shouts.

Treason and murder ever kept together,  
As two yoke devils sworn to either's purpose:  
Working so grossly in a natural cause,  
That admiration did not *whoop* at them. *Shakspeare.*

Let them breathe awhile, and then  
Cry *whoop*, and set them on again. *Hudibras.*

While he trusts me, 'twere so base a part  
To fawn, and yet betray; I should be hissed  
And *whooped* in hell for that ingratitude. *Dryden.*

WHORE, *n. s.*, *v. n.*, & *v. a.* } Sax. *hop*; Belg.  
WHORE'DOM, *n. s.* } *hoer*; Dan. *hore*;  
WHOREMASTER, } Goth. *har*; all  
WHOREMONGER, } from hire. A  
WHORE'SON, } hired woman; a  
WHOR'ISH, *adj.* } woman who con-  
verses unlawfully with men; a strumpet: to have  
intercourse with prostitutes: corrupt with regard  
to chastity: whoredom is the state or sin of whores  
and their paramours: whoremaster and whore-  
monger, one who keeps or converses with prosti-  
tutes: whoreson, a bastard: whorish, unchaste.

By means of a *whorish* woman a man is brought to a  
piece of bread. *Proverbs.*

What is a *whoremaster*, fool?—A fool in good cloaths,  
and something like thee. *Shakspeare.*

*Whoreson*, mad compound of majesty, welcome. *Id.*

To put out the word *whore*, thou dost me wo  
Throughout my book; troth, put out woman too. *Ben Jonson.*

Some let go *whoredom* as an indifferent matter, which  
yet strive for an holy-day as for their life. *Hali.*

Art thou fully persuaded that no *whoremonger* nor  
adulterer shall have any inheritance in the kingdom of  
God? and dost thou continue to practice these vices? *Tillotson.*

'Tis a noble general's prudent part,  
To cherish valour, and reward desert:  
Let him be daubed with lace, live high, and *whore*;  
Sometimes be lousy, but be never poor. *Dryden.*

If he were jealous, he might clip his wife's wings;  
but what would this avail, when there were flocks of  
*whoremasters* perpetually hovering over his house? *Addison.*

Have I *whored* your wife? *Congreve.*

Frog was a sly *whoreson*, the reverse of John. *Arbutnot.*

WHURT, *n. s.* Dan. *hiort*, *hore*. A whortle-  
berry; bilberry.

For fruits, both wild, as *whurts*, strawberries, pears,  
and plums, though the meaner sort come short, the  
gentlemen step not far behind those of other parts. *Carew.*

WHY, *adv.* } Sax. *hpi*, *ponhpi*. For what  
WHY'NOT. } or which reason? interrogatively  
or relatively: whynot Johnson calls 'a cant word  
for violent or peremptory procedure.'

In every sin, men must not consider the unlawfulness  
thereof only, but the reason *why* it should be un-  
lawful. *Perkins.*

You have not been a-bed then?  
*Why*, no; the day had broke before we parted. *Shakspeare.*

If her chill heart I cannot move,  
*Why*, I'll enjoy the very love. *Cowley.*

I was dispatched for their defence and guard,  
And listen *why*, for I will tell you now. *Milton.*

Capoched your rabbins of the synod,  
And snapped their canons with a *whynot*. *Hudibras.*



Turn the discourse, I have a reason *why*  
I would not have you speak so tenderly. *Dryden.*  
We examine the *why*, the what, and the how of  
things. *L'Estrange.*

WHYMEA ROAD, a road on the south-west coast of the island of Attowai. Captain Vancouver says this bay is much confined in respect to safe anchorage; for, although the Discovery's cables had not been injured by a foul bottom, yet the Chatham, in March 1792, when anchored in thirty fathoms water, at only a convenient distance to the north-west of the Discovery, on a bottom of soft mud, had both her cables much fretted and damaged by the rocks at the bottom.

WHYTT (Robert), M. D., F. R. S., &c., an eminent Scottish physician of the last century, educated at Edinburgh, where he was born in 1714. After studying physic, at St. Andrew's, he went to France for the completion of his education, and graduated in 1736 at Rheims. On his return to Scotland he commenced practice, and rose to be professor of medicine in the university of Edinburgh, president of the College of Physicians, and first physician to the king in Scotland. Dr. Whytt was the author of some able professional tracts, which he collected and published in one quarto volume. His death took place in the spring of 1766.

WICK, *n. s.* Sax. *weoce*; Belg. *wiecke*. The burning part of a torch or candle.

But true it is, that when the oil is spent  
The light goes out, and *wick* is thrown away. *Spenser.*

There lives within the very flame of love  
A kind of *wiek* or snuff that will abate it. *Shakespeare.*  
Little atoms of oil or melted wax continually ascend  
apace up the *wick* of a burning candle. *Digby.*

WICK'ED, *adj.* } Dr. Johnson says the  
WICK'EDLY, *adv.* } etymology is very obscure,  
WICK'EDNESS, *n. s.* } and refers to Sax. *picca*,  
an enchanter; *peccan*, to oppress; *pjupan*, to curse;  
*picca*, crooked, &c. These Skinner rejects for Lat.  
*vitiatus*. Mr. Thomson thinks it is a corruption of  
Sax. *ungon*, un and god, and cites the Dan. *ugud*,  
bad. Given to vice; flagitious; morally bad;  
baneful; accursed: the derivatives corresponding.  
The dwelling-place of the *wicked* shall come to  
nought. *Job.*

The *wicked* weed which there the fox did lay,  
From underneath his head he took away. *Spenser.*

It is not good that children should know any *wicked-*  
*ness*; old folks have discretion, and know the world.  
*Shakespeare.*

And as the better spirit when she doth bear  
A scorn of death, doth shew she cannot die;  
So when the *wicked* soul death's face doth fear,  
Even then she proves her own eternity. *Davies.*

I would now send him where they all should see,  
Clear as the light, his heart shine; where no man  
Could be so *wickedly* or fondly stupid,  
But should cry out, he saw, touched, felt *wickedness*,  
And grasped it. *Ben Jonson.*

He of their *wicked* ways shall them admonish.  
*Milton.*

That thou mayest the better bring about  
Thy wishes, thou art *wickedly* devout. *Dryden.*

But, since thy veins paternal virtue fires,  
Go and succeed! the rivals aims despise;  
For never, never *wicked* man was wise. *Pope.*

WICK'ER, *adj.* Dan. *wigre*, a twig; Swed.  
*wicka*. Made of small sticks.

Each one a little *wicker* basket had,  
Made of fine twigs entrailed curiously,  
In which they gathered flowers. *Spenser.*

Then quick did dress  
His halfe milke up for cheese, and in a presse  
Of *wicker* prest it. *Chapman.*

A foolish painter drew January sitting in a *wicker*  
chair, with four nightcaps on, by the fire; and without  
doors green trees, as if it had been in the midst of July.  
*Peacham.*

WICK'ET, *n. s.* Fr. *guicket*; Welsh *wicked*;  
Belg. *wicket*. A small gate.

When none yielded, her unruly page  
With his rude claws the *wicket* open rent,  
And let her in. *Spenser.*

These *wickets* of the soul are placed on high,  
Because all sounds do lightly mount aloft. *Davies.*

The chaffering with dissenters, and dodging about  
this or the other ceremony, is like opening a few *wickets*,  
by which no more than one can get in at a time.  
*Swift.*

WICKHAM, a village of Hampshire, remarkable  
for the elegant seats in its vicinity and the beauty  
of the surrounding scenery. Here was born the  
celebrated prelate William Waynesflete; bishop of  
Winchester, and here the learned Dr. Wharton  
closed the evening of his life.

WICKLIFF (John), was born about 1324, in  
the parish of Wycliff, near Richmond, in York-  
shire. He was educated at Oxford, first in Queen's  
and afterwards in Merton College, of which he was  
a fellow. Having acquired the reputation of a  
man of great learning and abilities, in 1361 he was  
chosen master of Baliol Hall, and in 1365 consti-  
tuted warden of Canterbury College by the founder  
archbishop Simon de Islip; but was, in 1367,  
ejected by the regulars, together with three secular  
fellows. He thought their proceedings arbitrary,  
and therefore appealed to the pope; but, instead  
of obtaining redress, in 1370 the ejection was  
confirmed. This disappointment doubtless con-  
firmed his enmity to the see of Rome; for he had  
long before written against the pope's exactions  
and corruptions of religion. However his credit  
in the university continued; for, having taken the  
degree of D. D., he read public lectures with great  
applause; in which he frequently exposed the im-  
positions of the mendicant friars. About this time  
he published a defence of his sovereign Edward  
III. against the pope, who had insisted on the ho-  
mage to which his predecessor king John had  
agreed. This defence was the cause of Wickliff's  
introduction at court, and of his being sent one  
of the ambassadors in 1374 to Bruges, where they  
met the pope's nuncios, to settle several ecclesi-  
astical matters relative to the pope's authority. In  
the mean time Wickliff was presented by the king  
to the rectory of Lutterworth in Leicestershire, and  
in 1375 he obtained a prebend in the church of  
Westbury in Gloucestershire. Wickliff continued  
hitherto, without molestation, to oppose the papal  
authority; but in 1377 a bull was sent over to the  
archbishop of Canterbury, and to Courtney, bishop  
of London, ordering them to secure this arch-heretic  
and lay him in irons; the pope also wrote to the  
king, requesting him to favor the bishops in the  
prosecution; he also sent a bull to Oxford  
commanding the university to give him up. Be-  
fore these bulls reached England Edward III. was  
dead, and Wickliff, protected by John duke of  
Lancaster, uncle to Richard II., favored by the  
queen mother, and supported by the citizens of  
London, eluded the persecution of pope Gregory  
IX., who died in 1378. In 1379 this intrepid re-  
former presented to parliament a severe paper



against the tyranny of Rome, wrote against the papal supremacy and infallibility, and published a book on the Truth of the Scriptures, intended to prepare the way for an English translation of them, in which he made considerable progress. In 1381 he published *Sixteen Conclusions*, in the first of which he exposed the grand article of transubstantiation. These conclusions being condemned, by the chancellor of Oxford, Wickliff appealed to the king and parliament; but, being deserted by the duke of Lancaster he was obliged to make a confession at Oxford; and by an order from the king was expelled the university. He now retired to his living of Lutterworth, where he finished his translation of the Bible. This version, of which there are several MS. copies in the libraries of the universities, British museum, &c., is a very literal translation of the Latin Vulgate. In 1383 he was suddenly struck with the palsy, a repetition of which put an end to his life in December, 1384. He was buried in his own church, where his bones were suffered to rest in peace till 1428, when, by an order from the pope, they were taken up and burnt. Besides a number of works that have been printed he left a prodigious number of MSS.; an accurate list of which may be seen in bishop Tanner's *Bib. Brit. Hib.* Some of them are in the Bodleian Library, others in the British Museum, &c.

**WICKLOW**, a county of Ireland, in the province of Leinster. Its boundaries are, on the north Dublin; on the west Carlow, Kildare, and part of Dublin county; on the south the county of Wexford; and on the east the Irish Sea. Its greatest length is about forty English miles, and greatest breadth twenty; and the superficial contents amount to 311,600 Irish plantation acres. The territorial division of Wicklow consists of the half barony of Rathdown, together with the following baronies:—Arklow, Ballynacor, Newcastle, Shililah, Talbotstown Lower and Talbotstown Upper; and the ecclesiastical division comprises forty-eight entire parishes with parts of eight others. About one-tenth of the population receive gratuitous education in this county. The surface of this county is wholly encumbered with mountains, many of them lofty, barren, and unprofitable, but many also capable of easy reclamation by drainage only. The range adjacent to Dublin called the Kippune Group would afford excellent pasturage; but the great central district is not so happily formed for agricultural purposes. Mountainous countries generally abound in picturesque scenery, but Wicklow is particularly celebrated for the grandeur and beauty of its glens, lakes, and vales; of these the most conspicuous and attractive are the lakes and valleys of Glendaloch. This vale, noble, extensive, and picturesque, possesses very interesting remains of seven ancient churches, founded by St. Kevin, who is much venerated here; besides a perfect round tower of early and unknown date, with several other curious remnants of antiquity, the occasion of many a romantic and many an agreeable though fabulous tale. The Dargle and Devil's Glen are also scenes of considerable natural beauty and grandeur, though of a very different kind; and the vale of Arklow has attracted the attention of the most elegant of all the Irish bards. The singular beauty of the various glens of this county has occasioned the appropriation of most of its available surface to the accommodation of resident no-

bility and gentry, as well as the present gratifying and happy state of improvement to which every small tract has been brought. The lake scenery is peculiarly interesting. Mr. Latouche's demesne of Luggelaw is generally preferred by tourists as the most delightful scene of this class, but some others are little inferior. There are twelve pretty lakes scattered amongst the mountain glens, some of which are of considerable areas. The mountains in this county range from 1000 to 3000 feet in height; Lugnaquilla, the loftiest, being 3070 feet above the level of the ocean. Amongst many beautiful residences in Wicklow, the noble mansions of Kiltrudery (lord Meath's), Powerscourt (visited by king George IV. in 1821), Rusborough (the seat of earl Miltown), Charleville (the residence of lord Rathdown), and the remarkably beautiful and chaste edifice, of modern erection, in the abbey style, called Shelton Abbey (the seat of lord Wicklow), seem to deserve notice both from their elegance and their magnitude.

The mountain districts, which are entirely of granite formation, contain lead ore in abundance, which is now raised skilfully at the Seven Churches and at Glenmalur, and also copper ore, which has been raised, to the enrichment of many proprietors formerly, at Conebane and Ballymustagh. Alluvial gold was found some years ago in a stream originating in Croghan Kinshela Mountain, but it did not repay the expense of collecting. Garnets are gathered in various places, being found imbedded in the granite; and on the sea-shore are found pebbles susceptible of a high polish, known to the lapidary by the name of Wicklow pebbles. There is little or no manufacture carried on here; flannel was formerly the staple, for which a ready and good market existed in the town of Rathdrum. The chief towns are Wicklow (the assize town), Rathdrum, Bray, Enniskerry, Arklow, Newtown, Mountkenedy, Carnew, Blessington, Donard, Hollywood, and Baltinglass. The chief rivers are the Óvoca, formed by the Avonmore and Avonbeg, the Leitrim, the Vartrey, the Bray, the King's River, and the Slaney and Liffey, which take their rise here. The sea-coast is dangerous of approach, and requires the establishment of an asylum at Bray, at Graystones, or at Wicklow, at any of which the formation of a small harbour or pier is practicable. Wicklow returns two members to the imperial parliament, and gives title of earl to the ancient family of Howard.

**WICKLOW**, a town in the county of the same name, in the kingdom of Ireland. It stands on the sea-coast at the mouth of the river Leitrim, which was once defended by a fortified rock called the Black Castle, enclosed in the year 1375. The shallowness of the river permits only a scanty trade, but a good harbour might be constructed here at a small expense. The promontory of Wicklow Head, formidable to the mariner, is indicated at night by two light-houses erected thereon. In this town the assizes are held, besides annual races and four fairs. There is a barrack also for a company of foot, a county jail and court-house, a handsome church and glebe-house, and a Roman Catholic chapel, but no manufacture or important traffic; the ale of this town was once held in high estimation. The O'Tools of Imaly founded a monastery here for Franciscan friars, part of the walls of which are still remaining. Distance from Dublin twenty-eight English miles. Lat. 52° 7', long. 6° 30'.



WIDE, *adj. & adv.* Sax. *wīde*; Belg. *wijd*;  
WIDELY, *adv.* Goth. *wid*. Broad; ex-  
WIDEN, *v. a. & v. n.* tended far each way; re-  
WIDENESS, *n. s.* mote; wandering: at a dis-  
WIDTH. } tance; with great extent  
or breadth: widely and wideness correspond: to  
width is, to make or grow wide; to extend:  
width is, wideness; breadth.

They found fat pasture, and the land was wide and  
quiet. 1 *Chronicles*.

A little wide

There was a holy chapel edified,  
Wherein the hermit wont to stay  
His holy things each morn and even tide. *Spenser*.  
So now the gates are ope; now prove good seconds;  
'Tis for the followars fortune widens them,  
Not for the flyers. *Shakespeare*.

Of all these bounds enriched  
With plenteous rivers, and wide skirted meads,  
We make thee lady. *Id.*

Many of the fathers were far wide from the under-  
standing of this place. *Raleigh*.  
Consider the absurdities of that distinction betwixt  
the act and the obliquity; and the contrary being so  
wide from the truth of scripture and the attributes of  
God, and so noxious to good life, &c. *Hammond*.

With huge two-handed sway  
Brandish'd aloft, the horrid edge came down,  
Wide wasting. *Milton*.

The rugged hair began to fall away;  
The sweetness of her eye did only stay,  
Though not so large; her crooked horns decrease;  
The wideness of her jaws and nostrils cease. *Dryden*.

Let him exercise the freedom of his reason, and his  
mind will be strengthened; and the light which the re-  
mote parts of truth will give to one another will so as-  
sist his judgment that he will seldom be widely out.  
*Locke*.

These accidents, when they first happen, seem but  
small and contemptible, but by degrees they branch out  
and widen themselves into a numerous train of mis-  
chievous consequences. *South*.

Of wide of nature must he act a part,  
Make love in tropes, in bombast break his heart. *Tickle*.

Yet wide was spread their fame in ages past,  
And poets once had promised they should last. *Pope*.

WID'GEON, *n. s.* Fr. *vingeon*. A waterfowl,  
not unlike a small wild duck.

Amongst the first sort we reckon creysers, curlews,  
and widegons. *Carew*.

WIDOW, *n. s. & v. a.* } Saxon *wīdwa*; Belg.  
WIDOWER, *n. s.* } *weduwe*; Welsh *weddw*;  
WIDOWHOOD, *n. s.* } Lat. *vidua*. A woman  
WIDOWHUNTER. } whose husband is dead:

to deprive of a husband; endow with widows'  
rights; deprive of any thing valuable: a widower  
is a man who has lost his wife: widowhood, the  
state of a widow or widower: widowhunter, a  
hunter of widows for their fortunes.

The barren they more miserable make,  
And from the widow all her comfort take. *Sandys*.

The king, sealing up all thoughts of love under the  
image of her memory, remained a widower many years  
after. *Sidney*.

Ne ween my right with strength adown to tread,  
Through weakness of my widowhood or woe,  
For truth is strong. *Spenser*.

And will she yet debase her eyes on me,  
Tnat troat the golden prime of this sweet prince,  
And made her widow to a woeful bed? *Shakespeare*.

In this city he  
Hath widowed and unchilded many a one,  
Which to this hour bewail the injury. *Id.*

For his possessions,  
Although by confiscation they are ours,  
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We do instate and widow you withal,  
To buy you a better husband. *Shakespeare*.

She employed her last widowhood to works no less  
bountiful than charitable. *Carew*.

Cherish thy hastened widowhood with the gold  
Of matrimonial treason: so farewell. *Milton*.

The widowed isle in mourning  
Dries up her tears. *Dryden*.

Who has the paternal power whilst the widow queen  
is with child? *Locke*.

The widowhunters about town often afford them great  
diversion. *Addison*.

WIDOWS' SCHEME, a scheme of raising a perpet-  
ual fund for the support of the widows and chil-  
dren of deceased ministers of the church of Scot-  
land, planned and brought to perfection by Dr.  
Alexander Webster. From an accurate list of the  
ministers of the church and members of the uni-  
versities in Scotland, compared with the ratio of  
births, marriages, and deaths, he fixed on a series  
of rates to be paid annually by these persons, the  
amount of which would supply a specific annuity  
to the widows and children of those who should  
become contributors. This scheme he began by a  
correspondence with all the clergy; and receiving  
the sanction of the general assembly in 1742, and  
that of the British parliament in 1748, from which  
period it began to be acted upon, the scheme was  
completed and legally enacted by parliament in  
1770. And his calculations at that early period  
were so accurate, and founded on such unerring  
principles, that the widows' fund, instead of falling  
short, has increased far beyond the original esti-  
mate. This excellent scheme has been since fol-  
lowed and imitated by most other incorporate  
bodies in Edinburgh, Glasgow, and other cities of  
Scotland.

WIELD, *v. a.* Sax. *wealdan*, to manage in the  
hand. To use with full command.

His looks are full of peaceful majesty,  
His head by nature framed to wear a crown,  
His hand to wield a scepter, and himself  
Likely in time to bless a regal throne. *Shakespeare*.

'Mongst forest, hills, and floods, was ne'er such heave-  
and shove,

Since Albion wielded arms against the son of Jove.

*Drayton*.

The least of whom could wield  
These elements, and arm him with the force  
Of all their regions. *Milton*.

He worthiest, after him, his sword to wield,  
Or wear his armour, or sustain his shield. *Dryden*.

WIELICZKA, a town of Austrian Poland, in  
Galicia, circle of Bochnia, the seat of a salt and a  
mine office, and remarkable for its large and pro-  
ductive salt mines. They are divided into three  
parts, and extend not only under the whole town,  
but to a considerable distance on each side, viz.  
700 yards from north to south, and 2000 from east  
to west. They have ten entrances, and in one of  
these is a winding staircase of 470 steps. On en-  
tering the subterranean regions the stranger is  
struck with the magnitude and beauty of the  
vaulted passages; he sees chapels, with altars, cut  
out of the saline rock, with crucifixes or images,  
and lamps continually burning before them. Seven  
miles from Cracow.

WIENERWALD (Forest of Vienna), a large  
forest of Lower Austria, extending from the Kah-  
lenberg southward beyond Kaumberg. It sepa-  
rates and gives name to the two circles of the  
Upper and Lower Wienerwald, otherwise called

the quarters above and below the forest of Vienna. The latter contains 1730 square miles, and 463,000 inhabitants, including Vienna. The circle above the Wienerwald contains 2000 square miles, and about 200,000 inhabitants. Its chief town is St. Polten.

**WIFERY**, *adj.* From wire. Made of wire: better written *wiry*.

Off with that *wiery* coronet, and shew  
The hairy diadem which on your head doth grow.

*Donne.*

Polymnia shall be drawn with her hair hanging loose about her shoulders, resembling *wiery* gold. *Peacham.*

**WIFE**, *n. s.* Plural wives. Sax. *wif*; Belg. *wijf*; Goth. *wif*. A woman that has a husband; a woman in low life.

There's no bottom, none,  
In my voluptuousness; your *wives*, your daughters,  
Your matrons, and your maids, could not fill up  
The cistern of my lust.

*Shakespeare.*

Strawberry *wives* lay two or three great strawberries at the mouth of their pot, and all the rest are little ones.

*Bacon.*

The *wife*, where danger or dishonour lurks,  
Safest and seemliest by her husband stays.

*Milton.*

The *wife* her husband murders, he the *wife*.

*Dryd.*

**WIG**, *n. s.* Contracted from periwig. False hair worn on the head.

Triumphing tories and desponding whigs  
Forget their feuds, and join to save their *wigs*.

*Swift.*

**WIGAN**, a borough, market-town, and parish, in West Derby hundred, Lancashire, situate near the small river Douglas, twelve miles north-east of Prescott, and 196 N. N. W. of London. Various branches of coarse linen manufacture, and large brass and pewter works, employ much of its population. Of late this town has increased in population, trade, and buildings; several new streets have been erected, containing many handsome houses, and it is lighted with gas. The church is a stately edifice, the tower of which contains eight bells. It has also a neat chapel of ease; and in this, as in most of the manufacturing towns, there are several chapels for various classes of Dissenters, and two Roman Catholic places of worship. The town-hall was erected in 1720, at the joint expense of the earl of Barrymore and sir Roger Bradshaw. Here is a free-school, a blue-coat school, and a dispensary. In a field near the Scroles Bridge a sulphureous spring has lately been discovered, said to resemble much the Harrowgate Spa; near it a neat building has been erected for the convenience of those who either drink the water, or use it for hot or cold bathing. At the end of the town is a monument to the memory of sir Thomas Tyldsley, a general officer who served king Charles at the battle of Edge Hill, and was killed on this spot in 1642. Wigan is incorporated under a mayor, recorder, twelve aldermen, two bailiffs, and inferior officers, and returns two members to parliament chosen by the free burgesses; the number of voters being about 200, and the returning officer the mayor. Market on Friday.

**WIGHT**, *n. s. & adj.* } Sax. *wiht*. A person;  
**WIGHTLY**, *adv.* } a being: used in irony or  
contempt: as an adjective, nimble; swift: the ad-  
verb corresponding.

For day that was is *wightly* past,  
And now at last the night doth hast.

*Spenser.*

He was so wimble and so *wight*,  
From bough to bough he leaped light,  
And oft the pumies latched.

*Id.*

This meaner *wight*, of trust and credit bare,  
Not so respected, could not look t' effect.

*Daniel.*

The water flies all taste of living *wight*.

*Milton.*

His station he yielded up to a *wight* as disagreeable as  
himself.

*Addison.*

In fame's full bloom lies Florio down at night,

And wakes next day a most inglorious *wight*;

The tulip's dead.

*Young.*

**WIGHT**, ISLE OF, on the coast of Hampshire, is separated from this county by a channel, varying in breadth from two to seven miles. Its form is that of an irregular lozenge, measuring about twenty-two miles from the eastern to the western angle, and thirteen from the northern to the southern, being sixty miles in circumference, and containing an area of 105,000 square acres, of which quantity 75,000 acres may be reckoned in a course of tillage, and 20,000 in pasturage. It is divided into two hundreds, East and West Medina, thirty parishes, and three boroughs, Newport, Newtown, and Yarmouth. Its principal river is the Medina, which gives name to its hundreds, and is so called from its dividing the island into two nearly equal parts; there are two other small streams, called the Yar and the Wootton. The face of the country is beautifully diversified, and the whole extremely fertile. The basis of the island is a close black clay, extremely firm, and when exposed to the air becomes hard enough to make whetstones; the higher parts of the island are composed of a vast mass of calcareous matter, and it produces chalk which is used as manure. The kinds of corn cultivated are wheat, barley, oats, peas, and beans; the quantity of wheat produced in the southern parts is about twenty-four bushels per acre, and in the northern about eighteen; the production of barley per acre is averaged at thirty bushels, and oats at thirty-five; hence the exports of grain are considerable, the island yielding seven to twelve times more than its consumption. The meadow-land is extremely rich, and produces from one to three tons of excellent hay per acre. The Downs stretching across the island from Brading to the Needles furnish excellent pasturage for sheep, the number fed thereon being computed at 40,000, sending 5000 lambs annually to the London market. The cows are mostly of the Devon breed, though crossed with other sorts; and the Alderney breed are in high repute, as they consume less provender while they yield as much milk as the English breed, and their cream is of a superior richness. The horses are large and generally black; the hogs are also of a large kind and make excellent bacon. The cheese, in general, is very indifferent, and equal in hardness to that of Suffolk.

Game is plentiful in the Isle of Wight. Timber, which in the time of Charles II. was so plentiful that it is said a squirrel might travel on the tops of the trees for many leagues together, is now much reduced in supplying the dock-yards at Portsmouth. Among the fossils of the district are to bacco-pipe-clay, fullers'-earth, yellow and red ochre, lime-stone, free-stone, and coal in small quantities. The coast yields all the usual species of fish, and the lobsters and crabs are particularly large and excellent. Several chalybeate springs have been found in different parts of the island. The trade of the Isle of Wight is flourishing. The chief imports are coals, timber, deal, iron, wine, hemp, and fruit. The principal exports are wheat, barley, malt, and salt. Its chief manufactures are



starch, hair-powder, and salt. The air throughout the island is extremely salubrious. The island is governed by a governor and lieutenant-governor, appointed by the crown. Very extensive barracks have of late years been erected here, and during the last war it was one of the principal depots for the foreign troops in British pay. The Isle of Wight is now reckoned a part of Hampshire, and included in the diocese of Winchester.

WIGTON, a market-town and parish in Cumberland ward, Cumberland, twelve miles south-west of Carlisle, and 305 from London. The streets of the town are in general clean and neat, and have lately been much improved. In 1788 a new and elegant church was erected, and in the town is an hospital for six Protestant clergymen's widows; an excellent endowed free-school, and a good Sunday-school. The chief causes which have contributed to the increasing prosperity of Wigton are the increase of the manufactories for various kinds of cotton-goods, and the enclosing of extensive common lands, within the last twenty years. The church and many of the buildings have been erected near the ruins of the ancient Roman Caer-Leol. Market Tuesday.

WIGTON, a county in the south-west of Scotland, bounded on the east by Kirkcudbrightshire, on the south and west by the Irish Channel, and on the north by Ayrshire; lying between lat. 54° 38' and 55° 4' N., and between long. 4° 16' and 5° 6' W., and containing 451½ square miles, or 288,960 English acres. It is of an irregular form, deeply indented with bays, and is twenty-three, twenty-five, and twenty-nine miles from north to south, and about thirty from east to west. It may be divided, according to the situation of its principal towns, into the three districts of Wigton, Whithorn, and Stranraer. The northern territory, called the Moors, is bleak and hilly, extending over three-fourths of the county, and containing only a few detached spots of arable land. The rivers in this county are of little importance.

WIGTON, a royal burgh of Scotland, capital of that district of Galloway to which it gives name.

WILBERFORCE, William, a distinguished philanthropist, whose exertions to procure the abolition of the slave-trade gave him a high rank among the benefactors of the human race, was born at Hull, in Yorkshire, in the year 1759, of which place his grandfather had been twice mayor. His father died when he was young, and, in 1774, he was sent to St. John's college, Cambridge, where he formed an intimacy with Mr. Pitt. Mr. Wilberforce came into a good fortune, and was elected member of parliament for Hull in 1780. During this parliament, he did not take any very active part in politics. He was also elected in 1784, and, owing to the partiality of the people for Mr. Pitt's friends, was also chosen for the county of York: he therefore made his election for that county. In 1787, he brought forward a motion for the abolition of the slave-trade, and presented a great number of petitions in favor of that measure. The minister spoke in favor of the abolition, but suffered the motion to be lost. The next year, Mr. Wilberforce being ill, Mr. Pitt brought on the motion, and the question was carried without a division; but it went no further. It was a singular circumstance, that

Mr. Pitt, whose power was then at its zenith, could carry every measure but this. Mr. Wilberforce had much to contend with before he completed his object; and all he could do was to procure some regulations favorable to the slaves during their passage. The condition of the slaves in the West Indies was, however, greatly improved. While Mr. Pitt was minister, every trick was tried to avoid the question, till Mr. Fox and his friends succeeded to power, when, to their honor, he and his friends carried the measure. The influence of Mr. Wilberforce in the house of commons was extraordinary; and, at one time, during the French war, an appearance of defection on the part of Wilberforce and his friends induced Pitt to open a treaty with France. Mr. Wilberforce published a *Practical View of the prevailing Religious Systems of Professed Christians in the higher and middle Classes of the Country contrasted with real Christianity* (1797); an *Apology for the Christian Sabbath* (1799); a *Letter on the Abolition of the Slave-Trade* (1807); and *Substance of his Speeches on the Bill for promoting the Religious Instruction of the Natives of British India* (1813). He died in 1833.

|                               |                                       |
|-------------------------------|---------------------------------------|
| WILD, <i>adj. &amp; n. s.</i> | Sax. <i>pilb</i> ; Teut. <i>Belg.</i> |
| WIL'DER, <i>v. a.</i>         | and Dan. <i>wild</i> . Not tame;      |
| WILDERNESS, <i>n. s.</i>      | not domestic; savage;                 |
| WILD-FIRE,                    | fierce; untamed; desert;              |
| WILD-GOOSE-CHASE              | strange; imaginary; a wild            |
| WILD'ING                      | is a desert; to wilder, to            |
| WILD'LY, <i>adv.</i>          | lose or perplex in paths              |
| WILD'NESS, <i>n. s.</i>       | unknown: wilderness, a                |

synonyme of wild, noun substantive: wildfire, a composition very inflammable: wildgoose-chase, any pursuit, unlikely to succeed: wilding, a sour apple: the adverb and noun substantive correspond with the adjective.

Yet shall it in his boiling stomach turn  
To bitter poison, and like wildfire burn;  
He shall cast up the wealth by him devoured. *Sandy.*  
He came in like a wild man, but such a wildness as  
shewed his eye-sight had tamed him; full of withered  
leaves, which, though they fell not, threatened fall-  
ing. *Sidneys.*

He travelled through wide wasteful ground,  
That nought but desert wilderness shewed all around.  
*Spenser.*

WILD (Henry), a tailor of Norwich, who had been educated at the grammar-school there, but by his own exertions made himself master of Hebrew and Arabic; on which he was drawn from obscurity by Dr. Prideaux, who procured him a place in the Bodleian library. He afterwards went to London, where Dr. Mead patronised him. He translated from the Arabic Mahomet's Journey to Heaven. He died in 1733.

WILD (Robert) D. D., a Presbyterian divine, educated and graduated at Oxford. He became rector of Aynhoe in Northamptonshire during the commonwealth, but was deprived after 1660. He wrote 1. *The Tragedy of Mr. Christopher Love*; 2. *Iter Boreale*, a Poem on the Imprisonment of Mr. Calamy, and some other poems; also some Sermons. He died at Oundle, in 1769.

WILD ANANAS. See BROMELIA.  
WILD ANGELICA. See EGOPodium.  
WILD BASIL. See THYMUS.

**WILD FIRE**, a kind of artificial or factitious fire, which burns even under water, and that with greater violence than out of it. It is composed of sulphur, naphtha, pitch, gum, and bitumen; and is only extinguishable by vinegar mixed with sand and urine, or by raw hides. Its motion or tendency is said to be contrary to that of natural fire, and always follows the direction in which it is thrown, whether it be downwards, sideways, or otherwise. The French call it Greek or Grecian, or feu Grequois, because first used by the Greeks, about the year 660; as is observed by the Jesuit Petavius, on the authority of Nicetas, Theophanes, Cedrenus, &c.

**WILD GOOSE.** See ANAS.

**WILD LETTUCE.** See PRENANTHES.

**WILD OLIVE.** See ELEAGNUS.

**WILD PARSLEY.** See SISON.

**WILD SERVICE.** See CRATEGUS.

**WILD TANSEY.** See POTENTILLA.

**WILD WOAD.** See RESEDA.

**WILD WORMWOOD.** See PARTHENIUM.

**WILDE** (Sir William), a lawyer of the seventeenth century. He was recorder of London in 1659; was created a baronet in 1660; made king's serjeant in 1661; a justice of the common pleas in 1668; and of the King's Bench in 1672. He published Yelverton's Reports. He died in 1679.

**WILDERNESS**, in gardening, a kind of grove of large trees, in a spacious garden, in which the walks are commonly made either to intersect each other in angles, or have the appearance of meanders and labyrinths. See GARDENING.

**WILDING**, in botany. See PYRUS.

**WILE**, *n. s.* Sax. *wile*; Isl. *wiel*. A deceit; fraud; trick; stratagem.

Their leader by his *wiles* had much obtained,  
And done much mischief on the English state.

*Daniel.*

My sentence is for open war; of *wiles*,  
More unexpert, I boast not; them let those  
Contrive who need.

*Milton.*

The heart of man is so full of *wiles*, artifices, and  
deceit, there is no guessing at what he is from his  
speeches.

*Addison.*

Wisdom's above suspecting *wiles*,  
The queen of learning gravely smiles.

*Swift.*

**WILINGO**, a town of Sweden, in Schonen.

**WILKES** (John) was born in Clerkenwell, in 1728. He received a liberal education, and, after travelling abroad, married a lady of fortune, and became colonel of the Buckinghamshire militia. In 1761 he was elected M. P. for Aylesbury; and soon became a violent opponent of the earl of Bute's administration, and published a scurrilous periodical work against them, entitled *The North Briton*; of which the forty-fifth number, wherein he attacked the king's speech, was so very offensive, that a general warrant was issued by the earl of Halifax to seize Mr. Wilkes and his papers. This illegal step made a great noise, and rendered Wilkes very popular. See ENGLAND. He obtained a verdict in the court of King's Bench against the minister, by which general warrants were declared illegal. But he was soon afterwards prosecuted for publishing an obscene and blasphemous poem, entitled *An Essay on Women*; for which he was expelled parliament. He was repeatedly re-elected and returned for Middlesex, and repeatedly expelled, till 1774, when he was elected lord mayor, and no farther opposition was made. He

afterwards obtained the lucrative office of chamberlain of London. He left parliament in 1779. He rendered great service to the public during the riots in 1780, when by his prompt exertions he saved the bank from depredation. He died in 1797.

**WILKES** (Thomas), an Augustine canon of Osney near Oxford. He wrote a Chronicle of English Affairs from William I. to the end of the reign of Edward I., and some Latin tracts.

**WILKIE** (William), D. D., was born in the parish of Dalmeny, in West Lothian, on the 5th of October 1721. Having learned the Latin tongue at Dalmeny, he was, at the age of thirteen, sent to the university of Edinburgh; and in 1753 was ordained minister of Ratho. In 1757 he published the *Epigoniad*; and in 1759 a second edition was called for, to which he added *A Dream in the Manner of Spenser*. He was, the same year, chosen professor of natural philosophy in the university of St. Andrew's. In 1768 he published a volume of fables, previous to which the university conferred upon him the degree of D. D.; and he died, after a lingering illness, on October 10th, 1772.

**WILKINS** (Dr. John) was the son of a goldsmith of Oxford, and was born in 1614. He adhered to the parliament during the civil wars, by whom he was made warden of Wadham College in 1648: he married afterwards the sister of Oliver Cromwell, and procured a dispensation to retain his wardenship notwithstanding. Richard Cromwell made him master of Trinity College, Cambridge, from which he was ejected on the Restoration. He then became preacher to Gray's Inn, rector of St. Laurence Jury, London, dean of Rippon, and in 1668 was promoted to the bishopric of Chester. He died in 1672. He published several mathematical and philosophical treatises, as well as theological tracts: he was the first president of the Royal Society.

**WILKINSON** (Henry), a puritan divine, born in Yorkshire in 1616, and educated at Magdalen Hall, of which, during the Commonwealth, he became principal, but was ejected in 1660. He died at Cornard in Suffolk, in 1690. He published, 1. *Academical Discourses*; 2. *A Treatise on Freewill*; and, 3. *Another, On the Divine Right of the Lord's Day*, in Latin.

|  |                             |
|--|-----------------------------|
| <b>WILL</b> , <i>n. s., v. a., &amp; v. n.</i> | Sax. <i>pilla</i> ; Belg.   |
| <b>WILFUL</b> , <i>adj.</i>                    | and Danish <i>wille</i> ;   |
| <b>WILFULLY</b> , <i>adv.</i>                  | Goth. <i>vilia</i> . Deter- |
| <b>WILFULNESS</b> , <i>n. s.</i>               | mination; choice;           |
| <b>WIL'LING</b> , <i>adj.</i>                  | that power by which         |
| <b>WIL'LINGLY</b> , <i>adv.</i>                | we desire and pur-          |
| <b>WIL'LINGNESS</b> , <i>n. s.</i>             | pose; velleity; tes-        |

tament; disposition of a dying man's property: to will is to purpose; determine; desire; direct; a sign of the future tense; sometimes importing necessity, as 'he that shall come will come.' willul is firm of will; stubborn; inflexible: the adverb and noun substantive correspond: willing, consenting; pleased; favorable; desirous: the adverb and noun substantive correspond.

As many as were willing-hearted brought bracelets and earrings.

*Exodus xxxv. 22.*

Deliver me not over unto the will of mine enemies.

*Psalms.*

The wilful never want woe.

*Proverbs.*

Evil could she conceal her fire, and wilfully persecuted she in it.

*Sidney.*



If nature, then she may it mend with skill ;

If *will*, then she at *will* may *will* forego. *Spenser.*

Thy causeless ruth repress ;  
He that his sorrow sought through *willfulness*,  
And his foe fettered would release again,  
Deserves to taste his folly's fruit.

*Id.*

The *will* cannot be constrained.

*Perkins.*

Religion hath force to qualify all sorts of men, to make governors the apter to rule with conscience, inferiors for conscience sake the *willing*er to obey.

*Hooker.*

Two principal fountains there are of human actions, knowledge and *will* ; which *will*, in things tending towards any end, is termed choice. *Id.*

That preservation of peace and unity amongst Christian churches should be by all good means procured, we join most *willingly* and gladly with them. *Id.*

He *willed* him to be of good comfort, promising to bestow upon him whatsoever he should win. *Knolles.*

Never hydra-headed *willfulness*

So soon did lose his seat, and all at once,

As in this king. *Shakespeare.*

I make bold to press upon you with so little preparation.—You're welcome ; what's your *will* ? *Id.*

She's too rough for me ;

There, then, Hortensio, *will* you any wife ? *Id.*

We've *willing* dames enough. *Id.*

I dare not make myself so guilty,

To give up *willingly* that noble title

Your master wed me to. *Id.*

*Will* holds the serpent in the soul,

And on the passions of the heart doth reign. *Davies.*

If you do not *willfully* pass over any of your greater offences, but confess particularly, and repent seriously, of them, God will more easily pass by your lesser infirmities. *Bishop Taylor.*

He hath a *will*, he hath a power to perform.

*Drummond.*

That *will* carry us, if we do not *willfully* betray our succours, through all difficulties. *Hammond.*

I speak not of God's determining his own *will*, but his predetermining the acts of our *will*. There is as great difference betwixt these two, as betwixt my *willing* a lawful thing myself, and my inducing another man to do that which is unlawful. *Id.*

How can hearts not free serve *willing* ? *Milton.*

Thou to me

Art all things under heaven, all places thou,  
Who for my *willful* crime art banished hence. *Id.*

The silent stranger stood amazed to see  
Contempt of wealth, and *willful* poverty. *Dryden.*

Another branch of their revenue still  
Remains, beyond their boundless right to kill,  
Their father yet alive, impowered to make a *will*. *Id.*  
Constraint, in all things, makes the pleasure less ;  
Sweet is the love which comes with *willingness*. *Id.*

That is not hastily to be interpreted obstinacy or *willfulness* which is the natural product of their age.

*Locke.*

A man that sits still is said to be at liberty, because he can walk if he *wills* it. *Id.*

The condition of that people is so much to be envied, as some would *willingly* represent it. *Addison.*

Go, then, the guilty at thy *will* chastise. *Pope.*

Can any man trust a better support, under affliction, than the friendship of Omnipotence, who is both able and *willing*, and knows how to relieve him ? *Bentley.*

Let the circumstances of life be what or where they *will*, a man should never neglect improvement. *Watts.*

The *WILL* is that faculty of the mind by which it embraces or rejects any thing offered to it. See METAPHYSICS.

A *WILL* or Testament is ' the legal declaration of a man's intentions of what he *wills* to be performed after his death ; ' a will or testament being of no force till after the death of the testator, or person making it. Properly a will is limited to

land, and a testament only to personal estate ; and the latter requires executors. Upon the notion that a devise of land by will is merely a species of conveyance, is founded the following distinction between such devises, and dispositions of personal estate ; that a devise of a man's goods and personal property will operate upon all such personal estate as the maker of the will dies possessed of, at whatever distance of time he may die after making the will. But a devise of real estate will only operate on such estates as were his at the time of executing and publishing his will ; so that freehold lands, purchased after making the will, cannot pass under any devise in that will, unless the will shall have been legally and formally republished subsequent to the purchase or contract.

These wills and testaments are divided into two sorts ; first, written ; and, secondly, Verbal, or Nuncupative.

The law also takes notice of a particular gift, in the nature of a will, made by any one in contemplation of immediate death, which is called *Donatio causâ mortis* ; a gift in prospect of death. This, is, where a man, being ill, and expecting to die, gives and delivers something to another, to be his in case the giver dies ; but, if he lives, he is to have it again. In every such gift, there must be a delivery made by the giver himself, or some person by his order, in his last sickness, while he is yet alive ; for the gift will not be good if the delivery is made after his death. This delivery, however, may be made either to the person himself, for whom the gift is intended, or to some other for his use, which will be equally effectual, so as it is made in the life-time of the party giving. For the cautions of the law respecting Nuncupative wills, see TESTAMENT.

No stamp duty whatever is imposed on wills ; but the probate or letters of administration are charged with certain duties, in proportion to the value of the deceased's personal property. A will may therefore be written or executed, by the testator, on unstamped parchment or paper.

A codicil is a supplement to a will, or an addition made by the person making the will, annexed to, and to be taken as part of the will itself, being for its explanation or alteration ; to add something to, or to take something from, the former dispositions ; or to make some alteration in the quantity of the legacies, or the regulations contained in the will. This codicil may also be either written or verbal, under the same restrictions as regard wills. Whenever a codicil is added to a will or testament, and the testator declares that the will shall be in force, in such case, if the will happens to be void, for want of the forms required by law in the execution, or otherwise, yet it shall be good as a codicil, and shall be observed by the administrator. And, though executors cannot regularly be appointed in a codicil, yet they may be substituted in the room of others named in the will, and the codicil is still good. If codicils are regularly executed and witnessed, they may be proved as wills ; and so, if they are found written by the testator himself, they ought to be taken as part of the will, as to the personal estate, and proved in common form by witnesses, to be the hand writing of the person making the codicil, and by giving an account when, where, and how the same was found.—Burn. Eccl. Law.

If two wills are found, and it does not appear which was the former or latter, both are void ; so,



if two inconsistent wills of the same date appear, neither of which can be proved to be last executed, unless such inconsistency can be explained by some subsequent act of the testator, both are void; but, if two codicils are found, and it cannot be known which was first or last, and one and the same thing is given to one person in one codicil, and to another person in another codicil, the codicils are not void, but the persons therein named ought to divide the thing betwixt them. But, if the dates appear to the wills or codicils, the latter will is always to prevail, and revoke the former; as also the latter codicil, as far only as it is contradictory to the former; but, as far as the codicils are not contradictory, they are allowed to be both in force. For, though I make a last will and testament irrevocable, or unalterable, in the strongest words, yet I am at liberty to revoke or alter it; because my own act or words cannot alter the disposition of law, so as to make that irrevocable which in its own nature is revocable. If, in the same will, there are two clauses or devises totally repugnant and contradictory to each other, it has been held that the latter clause or devise shall take effect on the same principle as respects prior and subsequent wills. But it seems now, that where the same estate is given by a testator to two persons, in different parts of his will, they shall be construed to take the estate as joint tenants, or tenants in common, according to the limitation of the estates and interests devised.—3 Atk. 493: 1 Inst. 112, b. n. It was determined by the house of lords, upon the opinion of all the judges, that if a will be made, and afterwards another will, without cancelling the former, and either will is proved to be confirmed, after the other will, the whole estate comprised in the will so last confirmed will go according to the limitations in that will. And that if two wills appear, and the limitations in both are consistent, and they have both been confirmed by various codicils, the wills and codicils may all be taken together as one testamentary disposition, and such construction made as that the limitations in both wills shall take place to the disinherison of the heir at law.—Phipps v. Anglesey (Earl) Parl. Cases, title Will, ca. 2.

Where two legacies are given to the same person by the same will, or by will and codicil, the rule seems clear, that, by the devise of the same sum to a person by a second clause in a will as had before been given him by a former clause in the same will, he shall only take one of the legacies, and not both. But where a legacy is given to a person by a codicil as well as by a will, whether the legacy given by the codicil be more or less than, or equal to, the legacy given by the will, the legatee shall take both; and, if the executor contests the payment, it is incumbent on him to show evidence of the testator's intention to the contrary. See LEGACY.

Several regulations have been made by the law, in order to guard against any frauds in the disposition of real estate by will. As to such wills as dispose of goods and personal property only, if the will is written in the testator's own hand, though it has neither his name or seal to it, and though there are no witnesses to it, it is good, if sufficient proof can be obtained of the hand writing. And even if it is in another person's hand writing, though not signed by the testator, it will be good, if proof can be produced that it was

made according to his instructions, and approved of by him. But as many mistakes and errors, not to say misfortunes, must often arise from so irregular a method of proceeding, it is the safer and more prudent way, and leaves less in the breast of the ecclesiastical judge, if it be signed and sealed by the testator, and published in the presence of witnesses.—2 Comm. c. 32. It is expressly provided by the English stat. 29 Car. II, c. 3 (and by the Irish acts, 7 W. III, c. 12. sect. 3), that all devises of lands and tenements shall not only be in writing, but shall also be signed by the party so devising the same, or by some other person in his presence, and by his express direction; and shall be witnessed and subscribed, in the presence of the person devising, by three or four credible witnesses; or else the devise will be entirely void, and the land will descend to the heir-at-law.

A wish has often been expressed, by great authorities, that all testamentary acts should be rendered subject to the solemnities required by these statutes: and certainly the importance of such a provision is extremely evident when it is considered how much the intention of a testator may be defeated, by a will which is founded on one arranged plan, being partly good and partly void. The uncertainty as to what shall or shall not constitute a sufficient manifestation of the will, with respect to personal effects, is also extremely inconvenient, and a great source of litigation. See lord Loughborough's observations on this subject, in *Matthews v. Warner*, 4 Vesey 186. In the construction of this statute it has been adjudged that the name of the person making the will, written with his own hand at the beginning of his will, as, 'I John Mills do make this my last will and testament,' is a sufficient signing, without any name at the bottom. But this seems doubtful, unless the whole will be written by the testator himself:—And the safe and proper way is to sign the name, not only at the bottom or end of the will, but, as is usual and regular, at the bottom of each page or sheet of paper, if the will contain more than one: and the witnesses to the will, seeing the testator sign all the sheets, and put his seal (though this latter is not absolutely necessary in law), as well as his name, to the last sheet, must write their names under the attestation in the last sheet only.

It has also been determined that, though the witnesses must all see the testator sign the will, or at least acknowledge the signing, yet they may do it at different times.—*Jones v. Dale*, 5 Bac. Abr. But they must all subscribe their names as witnesses, in his presence, lest by any possibility they should make a mistake: and that a will is good, though none of the witnesses saw the testator actually sign it, if he owns it before them to be his hand writing. It is remarkable that the stat. 29 Car. II, c. 3, does not say the testator shall sign his will in the presence of the three witnesses, but requires these three things: first, that the will should be in writing; secondly, that it should be signed by the person making the same; and, thirdly, that it should be subscribed by three witnesses in his presence.—3 P. Wms. 254. But it is not at all necessary that the witnesses should be acquainted with the contents of the will; provided they are able, when called on, to identify the writing; i. e. to say that the paper, then showed them is the same they saw the testator sign.



Though the statute has required that the witnesses to the will shall witness it in the testator's presence (in order to prevent obtaining another will in the place of the true one), yet it is enough that the testator might see the witnesses; it is not necessary that he should see them signing; for otherwise, if a man should but turn his back, or look off, it might make the will void. And in a case where the testator desired the witnesses to go into another room seven yards distant, to witness the will; in which room there was a window broken, through which the testator might see them; it was, by the court, adjudged to be a witnessing in his presence. So where the testator's carriage was drawn opposite the windows of an attorney's office, in which the witnesses attested the will; it was clearly determined to be in the testator's presence.—1 Bro. C. R. 99. But if a will is executed at one time, and at another time, afterwards, the witnesses put their names to it, the testator being then insensible, this will not be a good will, as it cannot be said to be witnessed in his presence, if he is unconscious of what is passing.

A will made beyond sea, of lands in England, must be attested by three witnesses.

Before passing the act 55 Geo. III. c. 192, a will devising copyhold land, witnessed by one or two witnesses, or even without any witness at all, was held sufficient to declare the uses of a surrender of such copyhold lands made to the use of a will.—2 Atk. 37: 2 Bro. C. R. 58. But an equitable estate of copyhold will pass by devise without surrender.—1 Bro. C. R. 481. A copyhold or customary estate, the freehold of which is in the lord and not in the tenant, and which passes by surrender and admittance, was held to be neither within sect. 5, of the statute of frauds, 29 Car. II, c. 3, so as to require to a devise thereof the signature of the party, or the attestation of witnesses; nor within sect. 7 of that act, as a declaration of trust requiring to be proved by a writing signed by the party, which applies only to cases where the legal and equitable estates are separated; or by a will in writing, which must be understood only of such a will of lands as the statute recognises; viz. by a will attested by three witnesses. The court of King's Bench held that such estate might well pass by instructions for a will taken in writing by another in the presence and by the oral dictation of the party, without any signature or attestation; and which was established as a will by the ecclesiastical court granting probate thereof; and which is a good will by the statute of wills (32 Hen. VIII. c. 1); the estate having been surrendered to the use of the last will of the party in writing. Such estates passing not by the will alone, but by the will and surrender taken together.—7 East's Rep. 299.

**WILL WITH A WISP**, *n. s.* Jack with a lantern.

*Will with the wisp* is of a round figure, in bigness like the flame of a candle; but sometimes broader, and like a bundle of twigs set on fire. It sometimes gives a brighter light than that of a wax candle; at other times more obscure, and of a purple colour. When viewed near at hand, it shines less than at a distance. They wander about in the air, &c. *Muschenbroek.*

*Will-a-wisp* misleads night-faring clowns  
O'er hills and sinking bogs.

*Gay.*

**WILLAC.** See **VILLAC.**

**WILLAN** (Robert), M. D., a medical writer of eminence, born near Sedburgh, in Yorkshire, in 1757, was the son of a physician who belonged to the sect of the Friends; and studied at Edinburgh, where he took his degree as M. D. in 1780. Soon after he settled in practice at Darlington in Durham, whence he removed to London, and was appointed physician to a dispensary in Carey Street. In 1791 he became a fellow of the Antiquarian Society; his death took place in 1812, at Madeira, whither he had gone for the recovery of his health. Dr. Willan was the author of the *History of the Ministry of Jesus Christ*, 1782, 8vo.; and published, among various medical works, a valuable treatise on *Cutaneous Diseases*, 4to., illustrated with engravings.

**WILLIAM DE NANGIS**, a monkish historian of the fourteenth century. He was author of two *Chronicles*; 1. *A Chronical from the Creation of the World to his own time*. 1301; 2. *A Chronicle of the Kings of France*.

**WILLIAM OF MALMSBURY**, an historian of considerable merit in the reign of king Stephen. According to Bale and Pits, he was surnamed *Somersetus*, from the county in which he was born. From his own preface to his second book, *De Regibus Anglorum*, it appears that he was addicted to learning from his youth; that he applied himself to the study of logic, physic, ethics, and particularly to history. He retired to the Benedictine convent at Malmsbury, became a monk, and was made precentor and librarian; a situation which much favored his intention of writing the history of England. In this monastery he spent the remainder of his life, and died in 1142. He is one of our most ancient and most faithful historians. His capital work is that entitled *De Regibus Anglorum*, in five books; with an Appendix, which he styles *Historiæ Novellæ*, in two more. It is a judicious collection of whatever he found on record relative to England, from the invasion of the Saxons to his own times.

**WILLIAM OF NEWBURY**, so called from a monastery in Yorkshire, of which he was a member, wrote a history which begins at the conquest, and ends at the year 1197. His Latin style is preferred to that of Matthew Paris; and he is entitled to particular praise for his honest regard to truth.

**WILLIAM OF WYKEHAM**, bishop of Winchester, was born in the village of Wykeham, in Southampton, in 1324. He had his education at Winchester and Oxford. Having continued nearly six years in the university, his patron Nicholas Wedal, governor of Southampton, took him into his family, and appointed him his counsellor and secretary. Edington, bishop of Winchester, lord high treasurer of the kingdom, appointed him his secretary three years after, and also recommended him to king Edward III., who took him into his service. Being skilled in geometry and architecture, he was appointed surveyor of the royal buildings, and also chief justice in eyre. He superintended the building of Windsor Castle. He was afterward chief secretary of state, a keeper of the privy seal; and in 1367 succeeded Edington in the see of Winchester. A little after he was appointed lord high chancellor and president of the privy-council. In 1371 he resigned his chancellorship, and some time after the great seal. Edward being returned to England, after having



carried on a very successful war in France, found his exchequer in great disorder. The duke of Lancaster, one of his sons, at the head of several lords, having brought complaints against the clergy, who then enjoyed most posts in the kingdom, the king removed them from their employments. But the laymen who were raised to them behaved so ill that the king was forced to restore the ecclesiastics. The duke of Lancaster showed strong animosity to the clergy, and set every engine at work to ruin Wykeham. He impeached him of extortion, and of disguising things, and obliged him to appear at the king's bench. He got such judges appointed as condemned him; and, not satisfied with depriving him of all the temporalities of his bishopric, he advised Edward to banish him; but this prince rejected the proposal, and afterward restored to Wykeham all that he had been divested of. Richard II. was but eleven years old when Edward died: whereby the duke of Lancaster had an easy opportunity of reviving the accusations against the bishop of Winchester; nevertheless Wykeham cleared himself. Then he founded two noble colleges, the one in Oxford, the other in Winchester. Whilst he was exerting his utmost endeavours to improve these two fine foundations, he was recalled to court, and in a manner forced to accept of the office of lord high chancellor in 1389. Having excellently discharged the duties of that employment for three years, he obtained leave to resign it, foreseeing the disturbances that were going to break out. Being returned to his church, he finished his college, and built there so magnificent a cathedral that it almost equals that of St. Paul's in London. He laid out large sums in things advantageous to the public and to the poor; notwithstanding which, in 1397, he was in great danger; for he and some others were impeached of high treason in open parliament; however, he was again fully cleared. From that time till his death he kept quiet in his diocese, and there employed himself in all the duties of a good prelate. He died in 1404.

**WILLIAMS (Anna)**, the daughter of a surgeon in South Wales, where she was born in 1706. She had the misfortune to lose her sight at thirty-four; and, her father having been unfortunate, she had no means of subsistence. She acquired a trifle by a translation of *La Bletiere's Life of the Emperor Julian*, to which she subjoined original notes. This publication fortunately brought her to the acquaintance of Dr. Samuel Johnson. Mr. Garrick gave her a benefit, which produced her £200 clear. In 1766 she published a volume of *Miscellanies in Prose and Verse*; which increased her little capital greatly. The doctor continued her unalterable friend to the last; and she died at his house in 1783.

**WILLIAMS (Daniel)**, D. D., a celebrated presbyterian minister, born at Wrexham, in Denbighshire, in 1644. He went to Ireland and became chaplain to the countess of Meath. When the troubles broke out, in the end of James II.'s reign, he returned to London, in 1687; and became pastor of a congregation. In 1709 he received diplomas with the degree of D. D. from both the universities of Glasgow and Dublin. He founded the library in Redcross Street for dissenting ministers. He died in 1716. His *Sermons* were printed in 5 vols.

**WILLIAMS (John)**, D. D., an eminent English

prelate, born at Aber-Conway, in Caernarvonshire, in 1582, was educated at Ruthin school, Denbighshire, and St. John's College, Cambridge, where he graduated. In 1612 he became chaplain to the lord chancellor Egerton. He next became chaplain to king James I., who, in 1620, made him dean of Westminster, and in 1621 a member of privy council, bishop of Lincoln, and keeper of the great seal. After the accession of Charles I. the great seal was taken from him: and he was prosecuted in the Star-chamber on a false charge of betraying the king's secrets; fined £10,000; and imprisoned in the tower above three years. In 1640 he was released by order of parliament, and in 1641 made archbishop of York. He was again sent to the Tower with some of his brethren, by the lords, for framing a protest against all proceedings in parliament while they were hindered by the mob from attending. When released he went to York; but, the civil war breaking out, he retired to Wales, where he died in 1650.

**WILLIAMS (John)**, a learned and pious bishop, born in Northamptonshire, and educated at Magdalen Hall, Oxford. After the Restoration he was made rector of St. Mildred and a canon in St. Paul's cathedral. In 1689 he became chaplain to William and Mary, who gave him a prebend of Canterbury; and in 1696 made him bishop of Chichester. He published a volume of *Sermons* preached at Boyle's lectures; and several tracts against the Papists and Dissenters. He died in 1709.

**WILLIAMS (Sir Charles Hanbury)**, K. B., a celebrated poet and statesman, the son of John Hanbury, esq., a director of the South Sea Company. He represented Monmouthshire in three successive parliaments; and in 1744 was installed a knight of the Bath. In 1746 he was sent ambassador to Prussia; and soon after went in the same character to Russia; whence he returned in 1759. He wrote several lively Poems; which are published in *Doddsley's* and other collections. He died in 1759, soon after his return to England.

**WILLIAMSBURG**, borough, James City, county Virginia; twelve miles west of Yorktown, and fifty-five east by south of Richmond. It is situated between two rivulets, one of which flows into York, and the other into James River. It is regularly laid out, and was formerly the metropolis of the state. It contains a state house, a court house, a jail, a hospital, a college, and an Episcopal church. The principal streets run parallel, and are crossed by smaller ones at right angles. The main street is about a mile long, terminated at one end by the old capital, and at the other by the college. The houses are mostly indifferent ones of wood, old, and decayed; and the town has for several years been on the decline. The college of William and Mary was founded here in 1691, in the time of king William, who gave it an endowment of about £2000 and 20,000 acres of land, together with a revenue of a penny a pound on tobacco exported to the plantations from Virginia and Maryland. To these other endowments were added, and the whole annual income of the college was formerly estimated at £3000. The income, at present, is greatly diminished. It formerly had six professors, but at present only three or four. The college edifice is a large misshapen pile of building, affording but indifferent accommodations for students. The library contains about 3000



volumes, and the philosophical apparatus is valuable.

**WILLIS** (Dr. Thomas), a celebrated English physician, was born at Great Bodwin, in Wiltshire, in 1621. He studied at Christ Church College, Oxford. When that city was garrisoned for the king, he, among other scholars, bore arms for his majesty, and devoted his leisure hours to the study of physic. The garrison of Oxford at length surrendering to the parliament, he applied himself to the practice of his profession, and soon rendered himself famous by his care and skill. He appropriated a room as an oratory for divine service according to the church of England, whither most of the loyalists in Oxford daily resorted. In 1660, he became Sedleian professor of natural philosophy, and the same year took the degree of doctor of physic. In 1664 he discovered the famous medicinal spring at Alstropp, near Brackley. He was one of the first members of the Royal Society, and soon made his name illustrious by his excellent writings. In 1666, after the fire of London, he removed to Westminster; and his practice became greater than that of any of the physicians, his contemporaries. He died in 1675, and was buried in Westminster Abbey. He wrote a treatise on the Plague, and several Latin works, which were collected at Amsterdam in 2 vols. 4to.

**WILLIS** (Browne), LL. D., the son of the doctor, was born at Blandford, in Dorsetshire, in 1682, and educated at Westminster, and at Christ Church, Oxford, where he graduated. He was one of the revivers of the Society of Antiquaries; and visited all the cathedrals, except Carlisle. He published *A Survey of the Cathedrals of England and Wales*, in 2 vols. 4to; also *An Account of the Mitred Abbays*, 2 vols. 4to. He was elected M. P. for Buckinghamshire, and died in 1760, leaving his valuable cabinet of coins and MSS. to the university of Oxford.

**WILLISON** (David), a very popular Presbyterian clergyman, who was many years one of the established ministers of Dundee. He published *A Sacramental Directory*; and a *Treatise on the Sanctification of the Sabbath*, both in 8vo. He died at Dundee about 1750.

**WILLOW**, *n. s.* ? Sax. *pehe*; Wel. *gwilou*.

**WILLOWISH**, *adj.* } A tree worn by forlorn lovers: of a willow color.

When heaven's burning eye the fields invades,  
To marshes he resorts obscured with reeds,  
And hoary willows which the moisture feeds. *Sandys.*

Tell him, in hope he'll prove a widower shortly,  
I wear the willow garland for his sake. *Shakespeare.*

Make his body with greenish coloured crewel, or  
willowish colour. *Warton.*

Afflicted Israel sit weeping down,  
Their harps upon the neighbouring willows hung,  
No joyous hymn encouraging their tongue. *Prior.*

**WILLOW**, in botany. See **SALIX**.

**WILLOW**, **FRENCH**, a species of epilobium.

**WILLOW HERB**. See **EPILOBIUM**.

**WILLOW HERB** is also the name of a species of *lysimachia* and *lythrum*.

**WILLOW LEAFED MYRICA**. See **MYRICA**.

**WILLOW, SWEET**. See **MYRICA**.

**WILLUGHBY** (Francis), was the only son of Sir Francis Willughby, knight. He attained great skill in all branches of learning, and particularly mathematics. But the history of animals soon occupied his chief attention. In pursuit of this

study, he travelled over great part of Europe, with Mr John Ray. He died in 1672, aged thirty-seven; having impaired his health by his application. He wrote, 1. *Ornithologie libri tres*, folio. 2. *Historie Piscium libri quatuor*, folio. 3. A volume of Letters. 4. Several ingenious papers in the *Philos. Trans.*

**WILMINGTON**, a borough and port of entry, Newcastle county, in the hundred of Christiana, Delaware, between the Brandywine and Christiana creeks, one mile above their confluence, and two west of the Delaware; five miles N. N. E. of Newcastle, twenty-eight south-west of Philadelphia, and seventy north-east of Baltimore. It is built on gently rising ground, the most elevated part of which is 112 feet above tide water, and its situation is pleasant and healthy. It is regularly laid out, the streets intersecting each other at right angles, and the houses are mostly of brick. It contains a town house, a spacious almshouse, two market houses, three banks, a United States' arsenal, a Friend's boarding school for young ladies, a public library of about 1500 volumes, and ten houses of public worship: two for Presbyterians, two for Episcopalians, one for Friends, one for Baptists, one for Roman Catholics, one for Methodists, and two for Africans. A stone building was erected here for a college before the revolution, and a college was incorporated in 1803, but it has never gone into operation, and the building is appropriated for schools. Two semi-weekly newspapers are published here.

The Christiana is navigable as far as Wilmington for vessels drawing fourteen feet of water. The shipping owned here, in 1816, amounted to 9207 tons. The trade of the town is considerable; its exports consist chiefly in flour. It manufactures considerable quantities of leather. There is a bridge over the Brandywine, at the north entrance of the town, and another at the south entrance over the Christiana. The country around Wilmington is pleasant and finely situated. On the Brandywine, separated at a little distance from the body of the town, there is a village of about 100 houses, nearly one-half of which are included within the borough; and fourteen flour mills, the finest collection in the United States. The Brandywine and the Christiana, with their branches, afford a great number of excellent seats for mills and manufactories. In 1815 there were included within a space of nine miles, around Wilmington, forty-four flour mills, thirteen cotton manufactories, fifteen saw mills, six woollen manufactories, six gunpowder mills, two paper mills, two snuff mills, and several other mills and manufactories.—Also a port of entry and capital of New Hanover county, North Carolina, on the east side of Cape Fear River, just below the confluence of the north-east and north-west branches, about thirty-five miles from the sea; ninety south-east of Fayetteville, ninety-three S. S. W. of Newbern. It contains a court house, a jail, an academy, two banks, a printing office, an Episcopal, and a Presbyterian church. The exports from this town, in 1816, amounted to 1,061,112 dollars. The exports of the whole state amounted only to 1,328,771 dollars. The shipping owned here, in 1816, amounted to 8952 tons. It is well situated for trade, but is accounted unhealthy. The harbour admits vessels of 300 tons, but the entrance is rendered dangerous and difficult by a large shoal. Opposite the town are two islands which



extend with the course of the river, dividing it into three channels. They afford the finest rice fields in the state.

**WILMOT** (John), earl of Rochester, a great wit in the reign of Charles II., the son of Henry earl of Rochester, was born in 1648. He was taught classical learning at the free-school at Burford. In 1659 he was admitted a nobleman of Wadham College, where he obtained the degree of M. A. He afterwards travelled through France and Italy; and at his return was made one of the gentlemen of the bed-chamber to the king, and comptroller of Woodstock park. In 1665 he went to sea, and was in the *Revenge*, commanded by Sir Thomas Tiddiman, when an attack was made on Bergen. During the action, he acted so well, that he gained a high reputation for courage, which he supported in a second expedition, but afterwards lost it in a private adventure with lord Mulgrave. His mode of life had never been regular; but at last he became so sunk in debauchery that he was for five years together intoxicated. In October 1679, when recovering from a violent disease, which ended in a consumption, he was visited by Dr. Burnet. The doctor published an account of their conferences; in which it appears that, though he had lived the life of a libertine and atheist, yet he died the death of a penitent and Christian. His death happened in 1680; since which time his poems have been various times printed, both separately and together; but many pieces not of his writing have crept into the later editions.

**WILNA**, an extensive province of the north-west of European Russia, containing the north part of Lithuania. It extends from 53° 40' to 56° 15' of N. lat.; has an area of 2300 square miles; and a population of 1,000,000. The trade, such as it is, is carried on by the Jews. The principal rivers are the Niemen, the Vilia, the Pripez, and the Narew.

**WILNA**, a city of Russian Lithuania, the chief town formerly of a palatinate, at present of a province or government. It is situated in a hilly country, and occupies several eminences near the river Vilia or Vilna. Its circuit is nearly four miles; its population, amounting in 1788 to 21,000, is now nearly 30,000. Like other towns in Poland and Russia, it is built chiefly of wood, very deficient in cleanliness, and exhibits a striking contrast of wretchedness and tawdry magnificence. Wilna is the see of a Greek metropolitan and a Catholic bishop. Its university, established in 1570, was now modelled by the Russian government in 1803. Connected with the establishment is an observatory and several libraries. There are in Wilna also a gymnasium or classical school, a seminary for the education of the Catholic clergy, another for those of the Greek church, and an institution for youths of good family. 400 miles S. S. W. of Petersburg, and 195 east of Königsberg.

**WILSON** (Florence), known by the name of *Florentius Volusenus*, was born at Elgin, in the shire of Murray in Scotland, and educated in the university of Aberdeen. Travelling to England, he was introduced to Cardinal Wolsey, who appointed him tutor to one of his nephews. In that capacity he went to Paris, and continued there till the cardinal's death. During his residence there he became acquainted with the learned cardinal Bellai, archbishop of Paris, who allowed him a pension, and meant to have appointed him royal

professor of Greek and Latin in the university of Paris: but, Bellai being disgraced, Wilson's prospects faded. Wilson was taken ill at Avignon, and the cardinal proceeded without him. After his recovery, he paid a visit to the celebrated cardinal Sabote, the Mæcenas of his time, who was also bishop of Carpentras, where he then resided. The cardinal was so charmed with his erudition that he appointed him professor of the learned languages, with a stipend of 100 pistoles per annum. During his residence at Carpentras, he wrote his celebrated treatise *De Animi Tranquillitate*. Mackenzie says that he afterwards taught philosophy in Italy; and that, being at length desirous of returning to Scotland, he began his journey homeward, was taken ill at Vienne in Dauphiny, and died there in 1547. He was generally esteemed an accomplished linguist, philosopher, and Latin poet. He wrote, besides the above treatise, 1. *Poemata*, Lond. 1619, 4to. 2. *Commentatio quædam theologica in aphorismos dissecta*, per Sebast. Gryph. 3. *Philosophiæ Aristot. Synopsis*, lib. iv.

**WILSON** (John), a native of Kendal in Westmorland, whose first employment was that of knitting stockings; but, acquiring a great knowledge of botany, he commenced lecturer on that science, both at Kendal and Newcastle, with great success. In 1744 he published *A Synopsis of British Plants*, in Mr. Ray's method, 8vo. He died in 1750.

**WILSON** (Matthias). See **KNOT**.

**WILSON** (Richard), an eminent painter, born at Pingees in Montgomeryshire, in 1714. He studied portrait paintings at London; and in 1749 went to Italy. In 1755 he returned to London with high reputation, became a member of the Royal Academy, and in 1779 librarian. He died in 1782, aged sixty-eight.

**WILSON** (Thomas), lord bishop of Sodor and Man, was born in 1663, at Burton, in Cheshire. He commenced his education at Chester, and thence was removed to Dublin. He continued at college till 1686, when, on the 29th of June, he was ordained deacon. In 1686 he was licensed to the curacy of New Church in Winwick. In 1692 he was appointed domestic chaplain to William earl of Derby, and tutor to his son James lord Strange. He was soon after elected master of the alms house at Latham. As his income increased, he increased the portion of it which was allotted to the purposes of charity. At first he set apart a tenth, then a fifth, afterwards a third, and lastly, when he became a bishop, he dedicated a full half of his revenues to pious and charitable uses. In 1697 he was promoted to the bishopric of the Isle of Man; a preferment which he held fifty-eight years. This good prelate lived till 1755. His works have been published in 2 vols. 4to.

**WILSON** (Thomas), D. D., son of the bishop, was born in 1703, and educated at Christ Church, Oxford, where he graduated in 1739. He became rector of St. Stephen Walbrook, a prebend of Westminster, and sub-almoner to the king: yet he engaged with great keenness in political controversy, on which he published several tracts. He was such an enthusiastic admirer of Mrs. Macaulay, the historian, that he set up her statue in the character of liberty, in Walbrook church; which was justly censured as too high a compliment to a living character. He published a pamphlet, entitled *Distilled Liquors the Bane of the Nation*. He also published his father's works, and died at Bath in 1784.



WILTON, a borough, market town, and parish, in Branch and Dole hundred, Wiltshire, situate on the river Willy, three miles west by north of Salisbury, and eighty-five from London; containing 390 houses, and 7678 inhabitants, a considerable number of whom are employed in the carpet and clothing manufactures, but the principal trade is now in flannel and fancy woollens. It has a market on Wednesday; and sends one member to parliament.

Wilton-house, the seat of the earl of Pembroke, is the most magnificent house in the county. The whole of its avenues, staircases, and chambers are ornamented with curious statues, vases, and antiques, collected from all parts of the world, and paintings by the most celebrated English and foreign artists. Here Sir Philip Sidney wrote his *Arcadia*.

WILTSHIRE, by some early writers, is called *Severnia*, and *Provincia Severorum*, from *Servia*, a name by which Old Sarum was formerly known. It derives its present name from Wilton, which was formerly the most considerable place in the county. The northern part was in early times inhabited by that tribe of the Belgæ distinguished by the name of *Cangi*. During the heptarchy this district formed part of the kingdom of the West-Saxons. It is an inland county, bounded on the north and north-west by Gloucestershire, on the west by Somersetshire, on the south-west by Dorsetshire, on the south and east by Hampshire, and on the north-east by Berkshire. It is about fifty-four miles in length, and thirty-four in the greatest breadth. It is divided into two districts, viz. South Wiltshire and North Wiltshire. This division is generally made by supposing an east and west line to pass through the county, at or near *Dêvizes*. This county is in the province of Canterbury and the diocese of Salisbury, and is comprehended in the western circuit. It is divided into twenty-nine hundreds, containing one city, twenty-five market towns, nine boroughs, and 304 parishes. Salisbury is considered as the county town.

There being a considerable difference between the two great parts of this county, it has been thought proper by Mr. Davis, in his *Agricultural Report*, to consider the circumstances of each district distinctly. The air on the whole is salubrious and agreeable: on the Downs it is sharp and clear; and in the valleys mild, even in winter. The cold sharp air of the Wiltshire Downs is so well known as to be almost proverbial. The soil of South Wilts, though various, is in a certain degree uniform: the hills are chalk, with its usual accompaniment of flint; and in general the land on the sides of the hills, from which the flints have been washed, is a chalky loam, or rather a dissolved chalk; the flatter parts are a flinty loam, and the centre of the valleys, through which the rivulets run, is a bed of broken flints covered with black earth washed from the hills above. In some of the valleys there are veins of peat formed by the black earth without any mixture of flints: hence the white land prevails most near the sources of the rivulets, where the hills are steepest; and the flinty loams near the junction of the rivulets, where the county is flattest. The sides of the hills which have been most washed are the thinnest and weakest soils; and the level tops, which have been very little if at all washed, are frequently the deepest and strongest land. There are some instances of strong clays and clayey loams on the skirts of this

district. These soils, with all their consequent mixtures and variations, may be said to constitute the far greater part of this district. The soil of the North District is not so uniform as that of the South District. It may, nevertheless, be reduced to a few leading particulars. The under stratum of a large portion is a loose irregular mass of flat broken stones, called in the country 'corn-grate.' It runs, without interruption, through the north-west part of Wiltshire. The upper soil of this corn-grate is chiefly a kind of reddish calcareous loam, mixed with irregular flat stones, and is usually called stone-brash. A vein of gravel of a most excellent, small, pebbly, shelly sand, and in general covered with a good depth of rich loam, runs in a broken line from Melksham, through Chippenham to Cricklade; but its greatest extent is from Tytherton, through Christian Malford and Dantzey, to Somerford; and the richest part of it perhaps is at or near Dantzey. There are two principal veins of sand in this district, in general red, of a sharp, loose, gravelly texture, and of course not so fertile as the tough close lands of South Wilts. The greatest part of the residue of the soil of this district, and particularly from Highworth by Wootton Bassett to Clack, lies on a hard close rock of a rough irregular kind of bastard limestone. The soil over this kind of stone is various, but generally cold, owing to its own retentive nature, and to the frequent intervention of a vein of clay. Bradon Forest (between Cricklade and Malmesbury) is an exception to the whole: it is a cold iron clay to the very surface; so bad as to be called, by way of distinction, 'Bradon land;' and, says Mr. Davis, whom we have before been quoting, never so well applied as when in its original state of woodland.

The principal rivers of Wiltshire are the Thames, the Upper and the Lower Avon, the Nadder, the Willey, the Bourne, and the Kennet. The Thames enters the north part of the county, between Cirencester in Gloucestershire and Tetbury, and runs eastward by Cricklade into Berkshire. The Lower Avon enters this county near Malmesbury, takes a southern course by Chippenham, where it becomes enlarged by the Colne and other rivulets into a wide stream, and winding westward, by Melksham and Bradford, leaves the county, and pursues its course towards Bath. The Upper Avon rises among the hills, nearly in the middle of the county, about *Dêvizes*; runs southward by the city of Salisbury, where it receives the united streams of the Willey and the Nadder; hence it flows into Hampshire, and at Christchurch makes its exit into the British Channel. The Nadder, a serpentine river, rises near Shaftsbury in Dorsetshire, upon the western borders of this county, and flowing north-east falls into the Willey at Wilton. The Willey rises near Warminster, and running south-east, after receiving the Nadder, falls into the Upper Avon on the east side of Salisbury. The Kennet rises near the source of the Upper Avon, and runs eastward by Marlborough into Berkshire. The smaller rivers of the county are the Colne, the Were, and the Deverill. This last dives under ground, like the *Guadiana* in Spain, and the *Mole* in Surrey, and pursues its subterraneous course upwards of a mile, then rising runs onward towards Warminster.—The canals of Wiltshire are the Thames and Severn Canal, which passes through only a small part of the extreme boundary



of the county. The Kennet and Avon Canal, which runs from the river Kennet to Newbury in Berkshire to the river Avon at Bath in Somersetshire, passing through the very heart of the county by the town of Devizes and Bradford. The Wilts and Berks Canal, which enters the county from Berkshire near South Marston, passes by Swindon and Wootton Bassett; and, with branches to Chippenham and Calne, extends southwards to Melksham, near which town it unites with the Kennet and Avon.—Wiltshire has no peculiarity of natural productions. Great numbers of sheep and cattle for the London markets are bred there. Neither are there any mineral productions deserving of particular notice.

Wiltshire, according to the regulations of the Reform Bill, sends eighteen representatives to the imperial parliament, viz. four for the county two for the city of Salisbury, one for Wilton, one for Westbury, one for Calne, two for Devizes, two for Chippenham, one for Malmesbury, two for Crickdale, and two for Marlborough.

The following are some of the most eminent persons born there:—The great, the wise, and good Joseph Addison, moralist, poet, dramatic writer, critic, and miscellaneous writer, was born at Milston, May 1, 1672, and died June 17, 1719.—Christopher Anstey, the ingenious author of the *New Bath Guide* (a work more distinguished for its humor and poetry, than for its decency and piety), was born, as is supposed, at Harden Herish, near Chippenham, in the year 1724.—Died in 1805.—Dr. Thomas Bennet, a learned divine and controversial writer. Born at Salisbury in 1673. Died in 1728.—Sir John Davis, an ingenious poet, and lord chief justice of the Court of King's Bench. Born at Chisgrove in 1570. Died about 1626. He married a daughter of lord Audley: she pretended to prophetic powers, and printed several pamphlets of revelation. She died in 1652.—Stephen Duck, an ingenious poet and divine, but originally a thrasher.—James Harris, a philological and philosophical writer. Born at Salisbury in 1709. Died in 1780.—Thomas Hobbes, a learned but eccentric philosophical and metaphysical writer. Born at Malmesbury in 1588. Died in 1679.—John Hughes, an ingenious poet, dramatic, and miscellaneous writer. Born at Marlborough in 1677. Died February 17, 1720. He had a brother named Jabez, who published a translation of Claudian's Rape of Proserpine, and several other works, and died in 1731, aged forty-six.—Edward Hyde, earl of Clarendon and lord chancellor of England. Born at Dinton in 1608. Died at Rouen in 1670.—George Keate, a poet and miscellaneous writer. Born at Trowbridge in 1729. Died in 1797.—Dr. Henry Sacheverell, a notorious political preacher. Born at Marlborough in 1672. Died in 1724.—Dr. John Scott, author of the work entitled, *The Christian Life, &c. &c.* Born at Chippenham in 1638. Died in 1694.—Thomas Tanner, bishop of St Asaph, a very learned and industrious antiquary. Born at Market-Lavington in 1674. Died 1738.—Sir Christopher Wren, an ingenious and celebrated architect, was born at East Knoyle in 1632. Died in 1723.

The extent of manufactures in the county of Wilts is very great; but the woollen manufactory is by far the greatest.—Salisbury manufactures great quantities of flannels and fancy woollens, and has

a considerable manufactory of cutlery, and steel goods, perhaps, for excellence of workmanship, superior to any in the kingdom; Wilton, a large manufactory of carpets and fancy woollens; Devizes, a considerable manufactory chiefly of fancy woollens; Bradford, Trowbridge, Warminster, Westbury, and all the adjacent towns and villages, from Chippenham to Heytesbury inclusive, carry on most extensive woollen manufactories, principally of superfine broad-cloths, kerseymeres, and fancy cloths; at Mere and its neighbourhood there is a manufactory of linen, chiefly dowlas and bed-ticks; at Albourne, a manufactory of cotton goods, chiefly strong goods, thicksets, &c.; at Swindon and its neighbourhood, a considerable manufactory of gloves. There is, indeed, scarcely a town in the county that has not a manufactory of some kind or other.

WILLY, *adj.* } From wile. Cunning; sly;  
WILLY, *adv.* } full of stratagem; insidious:  
WILINESS, *n. s.* } the adverb and noun substantive corresponding.

They did work *wilily*, and went and made as if they had been ambassadors. *Joshua.*

The ungodly, for his own lust, doth persecute the poor: let them be taken in the crafty *wiliness* that they have imagined. *Psaln x. 2.*

They are so cautious and *wily* headed, especially being men of small practice in law matters, that you would wonder whence they borrow such subtilities and shifts. *Spenser.*

In the *wily* snake  
Whatever slights, none would suspicious mark,  
As from his wit and native subtilty  
Proceeding. *Milton.*

My *wily* nurse by long experience found,  
And first discovered to my soul its wound;  
'Tis love, said she. *Dryden.*

WIMBLE, *n. s. & adj.* Belg. *wimpel*, from *wemelen*, to bore. An instrument with which holes are bored, by turning: nimble.

He was so *wimble* and so wight,  
From bough to bough he leaped light,  
And oft the pumies latched. *Spenser*

As when a shipwright stands his workmen o'er,  
Who ply the *wimble*, some huge beam to bore;  
Urged on all hands it nimbly spins about,  
The grain deep piercing till it scoops it out. *Pope.*

The trepan is like a *wimble* used by joiners. *Sharp.*

WIMPINA (Conrad), a learned professor of divinity at Frankfort, in the sixteenth century. He wrote against Luther under the name of John Tetzl. He died in 1529.

WIMPLE, *n. s. & v. a.* Fr. *guimpe*. A hood; a veil. Printed in Spenser, perhaps by mistake, *wimble*. To draw down as a veil.

The Lord will take away the changeable suits of apparel, and the *wimples*, and the crisping pins.

*Isaiah ii. 22.*

So fair and fresh, as fairest flower in May,  
For she had laid her mournful stole aside,  
And widow-like sad *wimble* thrown away. *Spenser.*

The same did hide  
Under a veil that *wimbled* was full low. *Id.*

WIN, *v. a. & v. n.* Pret. *wan* and *won*; *part. pass. won*. Sax. *pinna*; Belg. *winnen*; Goth. and Swed. *winna*. To gain by conquest; obtain; allure: to gain the victory; obtain influence or favor; be conqueror.

The town of Gaza, where the enemy lay encamped, was not so strong but it might be *won*. *Knolles.*

Thy virtue *won* me; with virtue preserve me. Dost thou love me? Keep me then still worthy to be beloved. *Sidney.*



A gamester, having lost all, borroweth of his next fellow-gamester somewhat to maintain play ; which he setting unto him again, shortly winneth all from the winner.

Spenser.

Go together,

You precious winners all ; your exultation

Partake to every one.

Shakespeare.

Beshrew the winners, for they played me false. *Id.*

When you see my son, tell him that his sword can never win the honour that he loses. *Id.*

She's beautiful, and therefore to be wooed ;

She is a woman, therefore to be won. *Id.*

You express yourself very desirous to win upon the judgment of your master, and not upon his affections only.

Bacon.

He gave him a command in his navy, and under his good conduct won many islands. *Heylyn.*

Nor is it aught but just,

That he, who in debate of truth hath won,

Should win in arms.

Milton.

Whether the winner laughs or no, the loser will complain ; and, rather than quarrel with his own skill, will do it at the dice.

Temple.

Thy well-breathed horse

Impels the flying car, and wins the course. *Dryden.*

He had given a disagreeable vote in parliament, for which reason not a man would have so much correspondence with him as to win his money. *Addison.*

Thy words like musick every breast controul,

Steal through the air, and win upon the soul. *Pope.*

That flood witnessed his inconstant flame,

When thus he swore, and won the yielding dame. *Gay.*

WINANDERMERE, or WINDERMERE, a parish in Kendal ward, Westmorland, taking its name from a noted lake of Winandermere. It lies on the western border of the county, at the foot of the Furness Fells, and comprehends the three townships of Appletwaite, Troubeck, Undermilbeck, and a part of Ambleside. This lake, the largest in England, is about twelve miles long and one broad, having very winding shores, and being from ninety to 222 feet deep. It is distinguished by the variety of beautiful prospects which it exhibits ; and it abounds with excellent fish, but is particularly noted for its delicate char. There are several little islands in the lake, in the largest of which stood an old fabric called Holme's house, now pulled down, and a curious edifice has been built in its place.

WINCANTON, a market-town in Ferris-Norton hundred, Somersetshire, seven miles west of Mere, and 108 west by south of London ; containing 390 houses and 2143 inhabitants, of whom a considerable number are employed in the manufacture of ticking, dowlas, serges, and stockings ; it has also a good trade in cheese.

WINCE, *v. n.* Arm. and Welsh *gwingo*. To kick, as impatient of a rider, or of pain.

I will sit as quiet as a lamb,

I will not stir, nor wince, nor speak a word. *Shaksp.*

Room, room, for my horse will wince,

If he came within so many yards of a prince.

Ben Jonson.

WINCH, *v. a.* The same with wince ; or from *Fr. guincher*, to twist. To kick with impatience ; shrink from any uneasiness.

We who have free souls

It touches not : let the galled jade wince,

Our withers are unwrung. *Shakespeare. Hamlet.*

This last allusion galled the panther more ;

Yet seemed she not to wince, though shrewdly pained.

Dryden.

Their consciences are galled ; and this makes them wince and fling, as if they had some mettle. *Tillotson.*

WINCHCOMBE, a market-town and parish in Kilsgate hundred, Gloucester, situate at the source of a small brook that falls into the Avon, among the Cotswold hills, six miles north-east of Cheltenham, and ninety-five and a half W. N. W. of London. This is a town of great antiquity, and was once deemed a county of itself.

WINCHELSEA, a Post and market-town in Guestling hundred, rape of Hastings, Sussex, two miles south of Rye, eight north-east of Hastings, and sixty-seven south-west of London. It has only one parish church, although it is supposed to have had anciently no fewer than eighteen, the whole of which were swallowed up by the sea in a tempest. That part of Old Winchelsea which was not swallowed up is now a marsh. About two miles to the north-west are the ruins of a castle called Camber, built by Henry VIII. in 1539.

WINCHELSEA (Anne), countess of, was maid of honor to the duchess of York, second wife to king James II., and was afterwards married to Heneage second son of the earl of Winchelsea. One of the most considerable of the countess of Winchelsea's poems was that on the Spleen. A collection of her poems was printed at London in 1713, containing a tragedy never acted, entitled *Aristomenes*. The countess died in 1720 without issue.

WINCHESTER, a city, and the county-town of Hants, situate on the banks of the river Itchin, eleven miles N. N. E. of Southampton, and sixty-two south-west by west of London. Most of the buildings have the appearance of antiquity, and the streets are broad and clean. It is about half a mile long from east to west, about a mile and a half in compass, and contains eight churches, exclusive of St. Bartholomews at Hyde.

The cathedral was begun in the eleventh century by bishop Walkelyn, and was in part rebuilt by bishop Wickham in 1394. The choir under the tower was vaulted in the reign of Charles I. The length of this magnificent fabric is 545 feet, including the chapel of our lady, fifty-four feet, and the choir 136. The height of the tower is 138 feet, but it appears from the abrupt manner of its termination never to have been finished. The altar-screen is thought by many to be even superior to that of St. Alban's. The entrance into the choir is by a noble flight of steps, the breadth of the middle aisle. On each side of the great arch of the entrance are recesses, wherein are placed the statues of king James and Charles I., cast in copper. The cross, from north to south, is divided from the choir by wooden partitions, carried up to a vast height. The stalls in the choir are of fine Gothic workmanship, but the bishop's throne is inferior to the rest. The stone screen, where the high altar is placed, is a neat and delicate piece of Gothic work ; but the niches, formerly ornamented with images, have now only urns placed in them. At the west end of the church is a painted window, representing the history of the Old Testament, but much defaced. At the east end is also a window with paintings representing the Virgin Mary, the Son, and the Father. For many years this church was the place of the coronation of our kings. The east end of the church is terminated by three chapels ; that on the south is called bishop Langton's chapel, of curious carved work, containing several elegant tombs. In the centre is the chapel of our Lady, in which prayers are read every morning at six o'clock.



The college was founded by William of Wickham, the warden whereof is appointed by New College, Oxford, also erected by the same pious founder. The building consists of two large courts, containing suites of apartments for the warden, ten fellows, seventy scholars, three chaplains, six choristers, masters, &c.; in the centre is an elegant chapel; in the second court are the schools, and a long cloister and enclosures for the diversions of the scholars. In the middle of the cloisters is the library, a strong stone building. Over the door of the school is a statue of the founder. Contiguous to the college, on the west, is a spacious quadrangular building, forming a detached school for commoners, or gentlemen not on the foundation, where they live in a collegiate manner under the immediate care of the head master. The college, chapel, and school, were completely repaired in 1795. The mother church of Winchester is St. Lawrence; it consists of one large aisle, with a lofty square tower containing five bells. St. Thomas's is an ancient structure, consisting of two aisles divided by round pillars of the Gothic order; the tower is a low ordinary building. St. Maurice's was originally a priory, and consists of two aisles, one of which is very spacious; the tower is strong. St. Michael's is a low and ancient building, tiled, having two good aisles, and a tower containing five bells. St. Swithin's is erected over a postern called Kingsgate, and consists of a large neat room, ascended to by a stone staircase. St. Peter's Cheese-hill consists of two aisles, of different sizes, both neat but plain; it has a tower containing three bells. St. John's at Hill is divided into three aisles by round Gothic pillars; the tower is remarkably strong, and finished with a turret containing a clock. St. Martin's Winnall was rebuilt in 1736, and consists of one aisle, having a small tower at the west end containing one bell. Besides these churches here are several meeting-houses for Dissenters of different denominations. Near the cathedral is a college or alms-house, founded by bishop Morley, in 1672, for ten clergymen's widows. Christ's Hospital, commonly called the Blue Alms, was founded in 1706; besides which there are a number of private charities, and three well-endowed charity-schools. The public infirmary is a handsome edifice, erected in 1759, the ascent to which is by a noble flight of steps. In the High Street is a market-cross, having five steps round it; this place serves also for a fish-market. The town-hall, in the same street, is a handsome building, supported by Doric pillars; it is ornamented with a statue of queen Anne. In 1788 a new spacious county jail was erected on the Howardian plan, in the court of which is a neat chapel; there is also a Bridewell for the city and another for the county; the latter erected in 1786. The theatre is a handsome structure, built in 1785. There is an annual well-attended music-meeting held here in September, continuing for three days, which closes with a ball. Winchester has also its winter assemblies, concerts, balls, and every other fashionable amusement. The streets are well paved and lighted, and a new and commodious market-house was erected in 1772. Here are two banking-houses.

Winchester, by the Britons, was called *Caer Gwent*, and during the time of the Saxons many of their kings resided here. Athelstan granted it the privilege of six mints, and in 660 it was erected into a bishopric, transferred from Dorchester. Its

ancient castle is supposed to have been built by king Arthur; in it William II., surnamed Rufus, was crowned. During the civil war it was mostly demolished by the parliamentary forces, except the old hall in which the assizes are still held; in this hall hangs what is denominated Arthur's round table, with the names of the knights thereon. On the site of the castle a royal palace was begun in 1683, the principal floor of which is a noble range of apartments, and contains in all 160 chambers; this has often been occupied by prisoners of war on their parole. Several monasteries and religious houses were formerly in the suburbs of this city. The plague made great devastations here in the years 941, 1348, and again in 1668; and at the west end of the town is an obelisk having an inscription commemorative of those calamities. The corporation of this city consists of a mayor, recorder, six aldermen, &c., who, with the free burgesses, return two members to parliament. Winchester has but little trade, though an ancient wool-combing manufactory still exists, and a silk manufactory has been introduced. All the public business of the county is transacted in this city. The markets are held on Wednesday and Saturday, and are well supplied with all kinds of provisions, poultry, fish, &c.

WINCHESTER, a post-town, borough, and capital of Frederick county, Virginia, thirty miles south-west of Harper's Ferry, seventy W. N. W. of Washington, ninety-five north-east of Staunton, and 150 N. N. W. of Richmond. It is pleasantly situated, regularly laid out in squares, is a handsome and flourishing town, and contains a court-house, a jail, an alms-house, a market-house, containing a freemason's hall, two banks, two academies, one for males and one for females, two printing offices, from each of which is issued a weekly newspaper, and six houses of public worship, one for Presbyterians, one for Episcopalians, one for German Lutherans, one for Baptists, one for Methodists, and one for Roman Catholics. The principal street is well paved. The town is well built; a large part of the houses are of brick. It is supplied with excellent water by an aqueduct. Near the town there are several medicinal springs; in the vicinity there are a number of flour mills.

WINCHESTER (Elhanan), the founder of a religious sect called for a time Winchesterians or Universalists, because their distinguishing tenet was the ultimate universal salvation of mankind, and also of the devils. Many of them have since become Unitarians. He was a native of the United States, where he appears to have first broached his sentiments. He visited this country about 1788, and attempted to found a Philadelphian Society, and propagated his doctrine by means of a magazine and preaching. He contended that as it was certain all are not regenerated in the present life, there must be room for a farther process of purification of fallen creatures in a future state; and that this would be effected chiefly by the means of punishment in the torments of hell, which, however, in some cases might extend to 'ages of ages' before the stubborn sinner would be purified. Besides other literary productions Mr. Winchester composed an heroic poem on the Process and Empire of Christ, from his Birth to the Time when he shall have Delivered up the Kingdom to God even the Father, which he recited from the pulpit in a chapel in Southwark, and afterwards pub-



lished in his magazine. Among his works are Lectures on the Prophecies that Remain to be Fulfilled, 1790, 4 vols. 8vo.; and the Universal Restoration, exhibited in a Series of Dialogues between a Minister and his Friend, 1788, 8vo., of which a fourth edition, with notes by W. Vidler, appeared in 1799. In consequence of some domestic misfortunes Mr. Winchester returned in 1792 to his native country, where he died.

WINCKELMAN (abbé John) was born at Stendall, in Brandenburg, in 1718. His father was a shoemaker. After having been seven years professor in the college of Seehausen near Salfwedel, he went into Saxony, where he resided seven years, and was librarian to count Bunau at Nothenitz. When he left this place, in 1754, he went to Dresden. In 1755 he went to Rome. His principal object was to see the Vatican library, and to examine the ruins of Herculaneum. In 1756 he planned the Restoration of Ancient Statues, and the Taste of the Greek Artists. He also designed an account of the galleries of Rome and Italy. He also intended a history of the corruption of taste in art, the restoration of statues, and an illustration of the obscure points of mythology. All these different essays led him to his History of Art, and his Monumenti Inediti. Mr. Winckelman's Monumenti Inediti, of which he had begun the third volume in 1767, seem to have secured him the esteem of antiquaries. Had he lived we should have had a work long wished for—a complete collection of the bas-reliefs discovered from the time of Bartoli to the present, the greater part of which are in the possession of cardinal Albani. When cardinal Albani succeeded to the place of librarian of the Vatican, he endeavoured to get a place for the Hebrew language for Winckelman, who refused a canonry because he would not take the tonsure. The elector of Saxony gave him, in 1761, unsolicited, the place of counsellor Richeter, the direction of the royal cabinet of medals and antiquities at Dresden. Upon the death of the abbé Venuti, 1762, he was appointed president of the antiquities of the apostolic chamber, with power over all discoveries and exportations of antiquities and pictures. This is a post of honor, with an income of 160 scudi per annum. He had a prospect of the place of president of antiquities in the Vatican, going to be created, at sixteen scudi per month, and was named corresponding member of the Academy of Inscriptions. The king of Prussia offered him the place of librarian and director of his cabinet of medals and antiquities, void by the death of M. Gantier de la Croze, with a handsome appointment. He made no scruple of accepting the offer; but when it came to the pope's ears he added an appointment out of his own purse, and kept him at Rome. In April, 1768, he left Rome to go with M. Cavaceppi over Germany and Switzerland. On his return to Italy he was assassinated for the purpose of robbery, by a miscreant with whom he had formed an acquaintance on the road.

WIND, *v. a., v. n., & n. s.*

WIND'EGG, *n. s.*

WIND'ER,

WIND'ING,

WIND'INGSHEET,

WIND'LESS.

*Preter. wound, in Pope winded; part. wound. Sax. pin-dan; Teut. and Belg. winden; Goth. and Swed. winda. To blow; sound by inflation; turn round; twist; direct or regulate in motion; enfold; insinuate; change; taking up: as a verb neuter, to turn;*

change; be convolved; proceed in flexures: a windegg is an egg not impregnated: a winder, any thing or person by which something is turned round; plants that twist round others: winding is, flexure; meander: windingsheet, a sheet in which the dead are wound: windlass, an instrument for turning or winding up tackle.

The squire 'gan nigher to approach,  
And wind his horn under the castle wall.  
That with the noise it shook as it would fall. *Spenser.*

He vaulted with such ease into his seat,  
As if an angel dropt down from the clouds,  
To turn and wind a fiery Pegasus. *Shakespeare.*

Edmund, seek him out, wind me into him; frame the business after your own wisdom. *Id. King Lear.*  
Sleep thou, and I will wind thee in my arms. *Shakespeare.*

These arms of mine shall be thy windingsheet;  
My heart, sweet boy, shall be thy sepulchre,  
For from my heart thine image ne'er shall go *Id. Henry VI.*

Thus do we of wisdom and of reach,  
With windlass, and with assays of bias,  
By indirections find directions out. *Id. Hamlet.*

Nero could touch and time the harp well; but in government sometimes he used to wind the pins too high, and sometimes let them down too low. *Bacon.*

Plants that put forth their sap hastily, have their bodies not proportionable to their length; and therefore they are winders and creepers, as ivy and bryony. *Id. Natural History.*

The figure of a sturdy woman, done by Michael Angelo, washing and winding of linen cloaths; in which act she wrings out the water that made the fountain. *Wotton.*

The winder shows his workmanship so rare  
As doth the fleece excel, and mocks her looser clew;  
As neatly bottomed up as nature forth it drew. *Drayton.*

These mathematical engines cannot be so easily and speedily wound up, and so certainly levelled, as the other. *Wilkins.*

He winds with ease  
Through the pure marble air his oblique way. *Milton.*  
Whence turning of religion's made  
The means to turn and wind a trade. *Hudibras.*

Sound eggs sink, and such as are addled swim; as do also those termed hypenemia, or windeggs. *Broune's Vulgar Errors.*

You that can search those many-cornered minds,  
Where woman's crooked fancy turns and winds. *Dryden.*

Every Triton's horn is winding,  
Welcome to the watery plain. *Id.*

Stairs of a solid newel spread only upon one small newel, as the several folds of fans spread about their centre; but these, because they sometimes wind, and sometimes fly off from that winding, take more room up in the staircase. *Moxon.*

Will not the Author of the universe, having made an automaton which can wind up itself, see whether it hath stood still or gone true? *Grew.*

Were our legislature vested in the prince, he might wind and turn our constitution at his pleasure, and shape our government to his fancy. *Addison.*

Still fix thy eyes intent upon the throng,  
And, as the passes open, wind along. *Gay.*

Mr. Whiston did not care to give more than short, general hints of this famous challenge, and the issue of it; but he endeavours to wind and turn himself every way to evade its force. *Waterland.*

Ye vigorous swains! while youth ferments your blood,  
Wind the shrill horn, or spread the waving net. *Pope.*

Swift ascending from the azure wave,  
He took the path that winded to the cave. *Id.*

To keep troublesome servants out of the kitchen,  
leave the *winder* sticking on the jack, to fall on their  
heads.

Swift.

Is there a tongue, like Delia's o'er her cup,  
That runs for ages without *winding up*?

Young.

WIND, *n. s.* } Saxon *wind*; Teut. Belg.  
WINDBOUND, *adj.* } and Dan. *wind*; Welsh  
WIND'DRIVEN, } *gwynt*. Air in motion; a  
WIND'FALL, *n. s.* } flux, effusion, or stream of  
WIND'GALL, } air; direction of such flux;  
WIND'GUN, } breath; any thing light or  
WIND'INESS, [*v. a.*] } trifling: 'to take the wind',  
WIND'OW, *n. s.* & } is to take the upper hand:  
WINDOW'ED, *adj.* } windgall is explained be-  
WIND'PIPE, *n. s.* } low: window seems origi-  
WINDWARD, *adj.* } nally winddoor: to window,  
WIND'Y. } to furnish with, place at, or

break into, openings like a window.

Being one day at my *window* all alone,

Many strange things happened me to see.

Spenser.

From this his modest and humble charity, virtues  
which rarely cohabit with the swelling *windiness* of  
much knowledge, issued this.

Brerewood.

Why should calamity be full of words?

*Windy* attornies to their client woes,

Poor breathing orators of miseries.

Shakspeare.

The worthy fellow is our general. He's the rock,  
the oak, not to be *wind* shaken.

Id. Coriolanus.

If my *wind* were but long enough to say my prayers,  
I would repent.

Shakspeare.

His horse infected with the fashions, full of *wind*-  
galls, and sped with spavins.

Id. Taming of the Shrew.

Poor naked wretches, whereso'er you are,

How shall your houseless heads, and unfed sides,

Your looped and *windowed* raggedness, defend you

From seasons such as these?

Id. King Lear.

Let gallows gape for dogs, let man go free,

And let not hemp his *windpipe* suffocate.

Id. Henry V.

Where the air is pent, there breath or other blowing,  
which carries but a gentle percussion, suffices to create  
sound; as in pipes and *wind* instruments.

Bacon.

Subtle or *windy* spirits are taken off by incension or  
evaporation.

Id.

Between these half columns above, the whole room  
was *windowed* round.

Wotton's Architecture.

Falmouth lieth farther out in the trade way, and so  
offereth a sooner opportunity to *wind-driven* ships than  
Plymouth.

Carew.

The *windgun* is charged by the forcible compression  
of air, being injected through a syringe.

Wilkins.

Such a sailing chariot might be more conveniently  
framed with moveable sails, whose force may be im-  
pressed from their motion, equivalent to those of a  
*windmill*.

Id.

A *windiness* and puffing up of your stomach after  
dinner, and in the morning.

Harvey on Consumption.

In an organ, from one blast of *wind*,

To many a row of pipes the sound-board breathes.

Milton.

What *windy* joy this day had I conceived,

Hopeful of his delivery, which now proves

Abortive.

Id.

Think not with *wind* of airy threats to awe.

Id.

His *wind* he never took whilst the cup was at his  
mouth, but justly observed the rule of drinking with  
one breath.

Hakewill.

The quacks of government, who sat

At the' unregarded helm of state,

Considered timely how t' withdraw,

And save their *windpipes* from the law.

Hudibras.

A fair view her *window* yields,

The town, the river, and the fields.

Walker.

The perfume of the flowers, and their virtues to cure  
shortness of *wind* in puray old men, seems to agree  
most with the orange.

Temple.

Yet not for this the *windbound* navy weighed;  
Slack were their sails, and Neptune disobeyed.

Dryden.

Exchanging solid quiet to obtain

The *windy* satisfaction of the brain.

Id. Juvenal.

Because continual respiration is necessary for the  
support of our lives, the *windpipe* is made with annu-  
lary cartilages.

Ray.

Gather now, if ripe, your winter fruits, as apples, to  
prevent their falling by the great *winds*; also gather  
your *windfalls*.

Evelyn's Kalendar.

Look, here's that *windy* applause, that poor transitory  
pleasure, for which I was dishonoured.

South.

His fancy has made a giant of a *windmill*, and he's  
now engaging it.

F. Atterbury.

In such a *windy* colic, water is the best remedy after  
a surfeit of fruit.

Arbuthnot on Aliments.

Forced from *windguns*, lead itself can fly,  
And pond'rous slugs cut swiftly through the sky.

Pope.

When you leave the *windows* open for air, leave  
books on the *window-seat*, that they may get air too.

Swift.

WINDS. Under the article PNEUMATICS our  
readers will find a very full illustration of the theory  
of the winds, and the local operation of land and  
sea in destroying the aërial equilibrium. Our space  
will now only permit a brief notice of the effect of  
air in motion in producing changes in the baro-  
meter.

About the beginning of the last century Mr.  
Hawksbee proposed the following experiment to  
explain the descent of the barometer during a  
storm:—"Having connected the cisterns of two  
barometers by a horizontal pipe of three feet, he  
inserted in the side of one of them a pipe opening  
outwards, and connected the other side with a  
large receiver, into which three or four charges of  
atmosphere had been compressed: on opening the  
cock, the air rushed with vehemence over the mer-  
cury in the cistern and effected its escape, while  
both columns fell simultaneously about two inches,  
and rose again as the force of the blast diminished;"  
from this experiment he derives four corollaries,  
the first two of which are, 1. 'That we have here  
a clear and natural account of the descent and vi-  
brations of the mercury during a storm.' And, 2.  
'That not only the different forces but also the  
different directions of the wind are capable of pro-  
ducing a difference of subsidence of the mercury.'  
Upon this professor Leslie remarks, 'This expe-  
riment has a specious appearance, and might seem  
to warrant the conclusions drawn from it; but a  
closer examination dispels the illusion; since the  
air had been condensed four times, it must issue  
from the vessel with the velocity of 2700 feet in a  
second; this is a rapidity, however, twenty times  
greater than the most tremendous hurricane; the  
very small change of the 400th part of an atmos-  
phere would hence have been sufficient to produce  
the strongest wind ever known, and therefore its  
influence in passing over the mercurial column  
must have been quite insignificant. But the expe-  
riment itself is absolutely fallacious; the peculiar  
result proceeded from a casual circumstance, the  
exit-pipe being larger than the pipe which intro-  
duced the air; for the air being previously con-  
densed, and still restrained in its passage through  
the induction pipe, on entering the cavity of the  
box immediately expands beyond the limit of equi-  
librium, and, finding an easy escape through the  
exit-pipe, allows that state of dilatation over the



mercury during the time of the horizontal flow, but the air contained in the other cistern must, from its communication by the pipe, suffer a like expansion, and the columns will subside equally.'

That this reasoning is also fallacious may be thus shown:—That the air, even after its 'dilatation' in its passage through the cistern, is still considerably denser than the surrounding air (otherwise the blast would cease) is beyond dispute; whence then the fall of the mercury? it should rather rise; this explanation is evidently inadequate. That the difference of size in the induction and exit-pipes will effect the result is admitted: indeed it is evident; and I am inclined to think that, if in the above case, the blast had been equally swift and less confined, the result would have been more striking, and therefore that 'the influence of the strongest wind ever known would not be quite insignificant.' The professor continues, 'Such is unquestionably the true explication of the fact,' and confirms it by an experiment.

The reason given in the latter case is undoubtedly just, but not so in the former; for to produce a rarefaction of the air in the cylinder it is necessary that more air should pass out through the external aperture than is injected at the other, an incident which we cannot look for.

The learned professor proposes a new theory of the variations of the barometer, the principle of which is, 'That as a horizontal current of air must, from the form of the earth, continually deflect from its rectilinear course, such a deflection being of the same nature as a centrifugal force, must diminish the weight or pressure of the fluid.' This may be sufficient to account for the fall of the barometer in high winds, but it necessarily ascribes the rise of it to a cause merely negative, viz. the absence of wind, yet the rise of the barometer in a north-east wind is often very considerable. On the other hand, if we consider the north wind as blowing downwards (which we may perhaps do as coming from a colder region) the fact accords with Mr. Hawksbee's theory.

WINDAGE of a gun, mortar, or howitzer, in military affairs, the difference between the diameter of the bore and the diameter of the shot or shell. In England the diameter of the shot is supposed to be divided into twenty equal parts, and the diameter of the bore into twenty-one of those parts. The French divide the shot into twenty-six, and the bore into twenty-seven. The Prussians divide the shot into twenty-four, and the bore into twenty-five. The Dutch nearly the same as the English. The general windage of shells in England is one-fourth of an inch, let them be large or small, which is contrary to all reason. It is evident that the less windage a shot or shell has, the farther and truer it will go; and, having less room to bounce from side to side, the gun will not be spoiled so soon.

It is true that some artillery officers say that the windage of a gun should be equal to the thickness of the ladle; because, when it has been loaded for a while, the shot will not come out without being loosened thereby, in order to unload it; and when this cannot be done it must be fired away, and so lost: but, in our humble opinion, the most advantageous windage would be in dividing the shot into twenty-four equal parts, and the bore into twenty-five, on account of the convenient scale it affords, not only to construct guns thereby but

also their carriages. Hence, agreeably to this plan the windage of a nine-pounder will be .166 of an inch, consequently a sufficient thickness for a ladle; and those of a higher calibre become still thicker in proportion.

WINDFLOWER. See ANEMONE.

WINDGALLS. See VETERINARY ART.

WIND-GUN. See AIR-GUN.

WINDHAM (William), a modern statesman of eminence, was the son of colonel Windham of Felbrigg in Norfolk. He was born in London in 1750, and educated at Eton, whence he was removed to Glasgow, and subsequently to University College, Oxford. He came into parliament in 1782 as member for Norwich, being then also secretary to the earl of Northampton, lord-lieutenant of Ireland. He sided with the opposition until the celebrated secession from the whig party in 1793, when he followed Mr. Burke and was appointed secretary at war. This office he retained until the resignation of Mr. Pitt in 1801, and much distinguished himself by his opposition to the treaty of Amiens. On Mr. Addington's being driven from the helm a new administration was again formed by Mr. Pitt, which terminating at his death, in 1806, lord Grenville, in conjunction with Mr. Fox, made up the administration so well known by the designation of All the Talents. In this short-lived cabinet Mr. Windham held the post of secretary of war and colonies, in which capacity he carried his bill for limited service in the regular army. His death took place May 17th, 1810, in consequence of a contusion of the hip, produced by a fall while exerting himself to save from the flames the library of his friend Mr. North. The eloquence of Mr. Windham was forcible, pointed, and peculiar, and he was a sound scholar.

WINDHATCH, in mining, a term used to express the place at which the ore is taken out of the mines.

A WINDLASS is a machine used for raising huge weights, as guns, stones, anchors, &c. It is very simple, consisting only of an axis or roller supported horizontally at the two ends by two pieces of wood and a pulley; the two pieces of wood meet at top, being placed diagonally so as to prop each other; the axis or roller goes through the two pieces and turns in them. The pulley is fastened at top where the pieces join. Lastly, there are two staves or handspikes which go through the roller, whereby it is turned, and the rope which comes over the pulley is wound off and on the same. In a small ship the windlass is placed upon the deck, just abaft the foremast.

A WINDMILL is a kind of mill, the internal parts of which are much the same with those of a water-mill; from which, however, it differs in being moved by the impulse of the wind upon its sails or vanes, which are to be considered as a wheel in axis.

WINDOW (vindue, Danish: some imagine it to have been originally wind-door), in architecture. This word has various derivations. Perhaps the most direct is the Danish one first cited; but there can be little doubt that the original meaning of the word was, like the Welsh term *wynt dor*, a passage for the wind. In fact it is still provincially denominated *windor* in Lancashire, as it is (though with no such retrospective intention) among the citizens of Cockaigne. Windows are an essential part of every building, since light is one of the principal



necessaries of existence. At the same time they may be so introduced as to contribute to ornamental as well as useful purposes; and the architect who thoroughly understands his profession will take especial care that they do so contribute. Nothing can be more tasteless and ugly than the 'hole in the wall' which is commonly denominated a window. Grace may be displayed not only in their number, size, and disposition, but in their shape and ornaments. The proportions of windows should of course vary according to the usages of different countries, and these usages are influenced by divers causes, such as climate, degrees of temperature, length of days, clearness of sky, &c., &c. In countries where, as in our own, the sun has seldom any very fierce sway, even in summer, and where the winter is long and dreary, the windows should be large and numerous, in order to convey to the interior of the house as much as possible of the light and heat that nature affords. On the other hand, in hot climates, they may be fewer and of less extent. Thus, then, it is impossible to lay down precise rules for the construction of these portions of architecture; but nevertheless there are rules springing out of the principles of solidity, convenience, agreement of parts, and the pleasure which arises from an harmonious combination. See PROPORTION.

In the most ancient eras, the windows of habitations were very small and narrow; and the same remark obtains with regard to the castles and other edifices constructed during the middle ages. In the painting on the Greek vase which represents Jupiter about to scale the window of Alcmena, the opening is exceedingly small. According to Seneca those of the baths of Scipio were so little that they merited not the name, and might rather be denominated crevices. As the Romans improved, however, in the elegant arts, this particular was not overlooked, and both their town and country houses were decorated with numerous and ample windows. It was not customary, though, to have them overlooking the street; and they were in the majority of instances confined to the interior court of the house. The windows of the temple of Jerusalem were larger within than without; and appear to have served the double purpose of admitting light and giving vent to the fumes of the incense which was so plentifully burned. The ancient temples had not generally windows; some exceptions, however, exist to this observation. Before the use of glass became common, which was not till towards the end of the twelfth century, the windows in this country seem generally to have been composed of paper; which, properly prepared with oil, forms no contemptible defence against the intrusions of the weather.

WINDPIPE. See ANATOMY, Index.

WIND-SAIL (wind and sail), a sort of wide tube or funnel of canvas, employed to convey a stream of fresh air downward into the lower apartments of a ship. This machine is usually extended by large hoops situated in different parts of its height. It is let down perpendicularly through the hatches, being expanded at the lower end like the base of a cone, and having its upper side open on the side which is placed to windward, so as to receive the full current of wind; which, entering the cavity, fills the tube, and rushes downwards into the lower regions of the ship. There are generally three or four of these in our capital ships of war, which,

together with the ventilators, contribute greatly to preserve the health of the crew.

WIND-SHOCK (wind and shock), a name given by farmers to a distemper to which fruit trees, and sometimes timber trees, are subject. It is a sort of bruise and shiver throughout the whole substance of the tree; but, the bark being often not affected by it, it is not seen on the outside, while the inside is twisted round and greatly injured. It is by some supposed to be occasioned by high winds; but others attribute it to lightning. Those trees are most usually affected by it whose boughs grow more out on one side than on the other. The best way of preventing this in valuable trees is to take care in the plantation that they are sheltered well, and to cut them frequently in a regular manner while young.

WINDSOR, NEW, a borough and market town in Berkshire, situated on the Thames, twenty-two miles west by south of London; containing 677 houses and 4288 inhabitants; viz. 1964 males, and 2324 females. This town has belonged to the crown ever since the conquest, and has of late been much improved; it consists of six principal streets, and several inferior ones. The former are well paved and lighted. The parish church, which has recently been rebuilt, is a neat, handsome, Gothic structure. In the High Street stands the Guildhall, or Town House, a neat structure, supported by columns and arches of Portland stone. On the north side is a statue of queen Anne, and on the south side that of prince George of Denmark; the inside is adorned with the portraits of many royal personages.

Windsor contains many handsome buildings, but its chief pride is its castle, which for more than 700 years has been a favorite residence of the British kings. It was first erected by William the Conqueror, soon after the conquest, received additions from many succeeding monarchs, and under Edward III. was almost entirely rebuilt: during the mischief and plunder of the civil war it became in some degree dilapidated; but it was restored to its ancient state and splendor by Charles II. This noble edifice is situated on a high hill, having a beautiful command of the Thames. On the declivity is a terrace, faced with a rampart of freestone, being 1870 feet long; at the end of this walk is a gate leading into the parks, which are several miles in circumference, and surrounded by a brick wall. The castle is divided into two courts or wards, with a large round tower or keep between them, the whole occupying about twelve acres of land; and having many batteries and towers for its defence. The upper court consists of a spacious square, bounded on the west by the round tower, on the north by the royal apartments, St. George's Hall, and the royal chapel; and on the east and south by the chambers appropriated for the officers of state. In the centre of this square is an equestrian statue of king Charles II. in the habit of a Roman Cæsar; underneath is a curious engine to raise water for the castle. The keep or tower is the lodging of the constable or governor, built in the form of an amphitheatre, ascended to by a flight of stone steps. Here is the guard room or magazine for arms, curiously arranged. Over the chimney is carved in lime wood the star and garter, encompassed with daggers and pistols. The lower court is larger than the upper, and is divided into two parts by St. George's Chapel, which stands in the



middle, and is reckoned one of the finest Gothic structures of the kind in being; on the north side of this court are the houses and apartments of the dean and canons, and other officers; and on the west side are the houses of the poor knights of Windsor. These poor knights, eighteen in number, have a premium of £18 per annum, and annually a gown of scarlet cloth, with a mantle of blue or purple cloth, on the sleeve of which is embroidered the cross of St. George. The royal apartments are on the north side of the court, called the star building, from having the star and garter in gold on the outside. The entrance is from the upper ward, through a handsome vestibule, which has undergone a total alteration from designs by Mr. Wyattville. Almost every room in this division of the castle is ornamented with paintings executed by masters of the greatest celebrity. Many of them, however, are not originals; and others are of inferior merit. The principal rooms of this splendid suite of apartments are the queen's guard chamber, the queen's presence chamber, the queen's audience chamber. The ball room, the queen's drawing room, the queen's bed chamber, the room of beauties, the queen's dressing room, queen Elizabeth's or the picture gallery, the king's bed-chamber, the king's drawing-room, the king's public dining-room, the king's audience-chamber, the king's presence-chamber, and the king's guard room. A grant of £500,000 was made by parliament in 1824 for repairing and embellishing this magnificent castle, which is now nearly finished.

St. George's hall is set apart entirely to the honor of the most illustrious order of the garter. The length of this superb chamber is 108 feet. The chapel of St. George was originally a chapel dedicated to Edward the Confessor, wherein Henry I. placed eight secular priests, pensioners. It was rebuilt by Edward III., and established as a collegiate church, having a dean, twelve canons, thirteen minor canons, four clerks, six choristers, and twenty-six poor alms knights. This structure owes its present form to Edward IV., and its completion to Henry VII. Here lie interred, under the choir, the bodies of Henry VIII. and Jane Seymour, Charles I. and a daughter of queen Anne; adjoining the east end is a neat building erected by Henry VII. as a burial place for himself and successors; a most sumptuous monument was afterwards erected here by Cardinal Wolsey, but he dying at Leicester was there privately buried. This chapel lay neglected until the reign of his late majesty, by whom it was completely repaired, in 1790; and adorned with rich carvings in wood, and a new altar-piece, organ, and gallery. The ceremonies of the installation of the knights of the garter are performed in this chapel with great state and solemnity. In the tower is a neat free-school for thirty-six boys and twenty-four girls; and an hospital for sick soldiers.

Windsor was made a free borough by Edward I., and sent members to parliament in the thirteenth year of the same reign (which it has continued to do except from 14th of Edward III. until 25th of Henry VI.), who are chosen by the inhabitants of the borough paying scot and lot, the number of voters being about 400. The corporation consists of a mayor, two bailiffs, twenty-eight burgesses, thirteen of whom are called fellows or benchers of the Guildhall; of these, ten, besides the mayor and bailiffs, are styled aldermen. A neat theatre has

been lately erected, but it is only opened during the vacations at Eton College. Here are extensive barracks for horse and foot soldiers. On the south side of this town is Windsor Great Park, well stocked with deer, fourteen miles in circumference; the entrance is by a road called the Long Walk, nearly three miles in length, through a double plantation of trees on each side, leading to the Ranger's Lodge; on the north and east side of the castle is the Little Park, about four miles in circumference: Queen Elizabeth's Walk herein is much frequented. At the entrance of this park is the Queen's Lodge, of recent erection. This building stands on an easy ascent opposite the upper court, on the south side, and commands a beautiful prospect over the surrounding country. The gardens are elegant, and have been much enlarged by the addition of the gardens and house of the duke of St. Alban's, purchased by his late majesty. In this park his present majesty has erected a most beautiful Cottage Ornée, as a place of occasional retirement. Windsor Forest, being a circuit of fifty-six miles, was originally formed for the exercise of the chase by our ancient sovereigns; and was also a favorite amusement of his late majesty. Market on Saturday.

WINDSOR, OLD, a parish lying to the east of New Windsor, and adjoining thereto. This was anciently the residence of the Saxon kings, that part called New Windsor having chiefly risen since the time of William I. Here are several elegant houses situated on the banks of the Thames. Near the church is a mineral spring, called St. Peter's Well.

WINDSOR, a county on the east side of Vermont, bounded north by Orange county, east by Connecticut River, south by Windham county, and west by Rutland and Addison counties. Chief towns Windsor and Woodstock.

WINDSOR, a post town of Windsor county, Vermont, on the west bank of the Connecticut, eighteen miles south of Dartmouth College, sixty-one south of Montpelier, and 112 north-west of Boston. It is a very pleasant, handsome, and flourishing town, one of the largest in the state, and has considerable trade. It contains a court house, a state prison, and an academy for young ladies, two handsome houses of public worship, one for Congregationalists, and one for Baptists. An Episcopal church is about to be erected. The state prison usually contains upwards of 100 prisoners. The academy is a respectable institution, and has from seventy to 100 pupils. The building is of brick, two stories high.

WIND-TAUGHT (wind and taught, for tight), in sea-language, denotes the same as stiff in the wind. Too much rigging, high masts, or any thing catching or holding wind aloft, is said to hold a ship wind-taught; by which they mean that she stoops too much in her sailing in a stiff gale of wind. Again, when a ship rides in a main stress of wind and weather, they strike down her topmasts, and bring her yards down, which else would hold too much wind, or be too much distended and wind taught.

WINDWARD, in the sea language, denotes any thing towards that point whence the wind blows, in respect of a ship: thus windward tide is the tide which runs against the wind.

WINDWARD ISLANDS, in opposition to Leeward. These islands, in the West Indies, extend from Martinico to Tobago.



**WINDWARD PASSAGE**, a name given to a course from the south-east angle of the island of Jamaica, in the West Indies, and extending from 160 leagues to the north side of Crooked Island, in the Bahamas. Ships have often sailed through this channel, from the north part of it to the island of Cuba, or the gulf of Mexico, notwithstanding the common opinion, on account of the current which is against it, that they keep the Bahama shore on board, and that they meet with the wind in summer for the most part of the channel easterly, which, with a counter current on shore, pushes them easily through it.

**WINE**, *n. s.* } Sax. *win*; Belg. *vinn*; Gothic  
**WIN'Y**, *adj.* } and Swed. *win*. The fermented  
 juice of the grape: winy, partaking of the quali-  
 ties of wine.

The increase of the vineyards for the *wine* cellars.

*Chronicles.*

Be not amongst *wine*-bibbers, amongst riotous eaters.

*Proverbs.*

His troops on my strong youth like torrents rush:

As in a *wine*-press Judah's daughter crusht.

*Sandys.*

The *wine* of life is drawn, and the meer lees

Is left this vault to brag of.

*Shakespeare.*

Where the *wine*-press is hard wrought, it yields a  
 harsh *wine* that tastes of the grape-stone.

*Bacon.*

Set cucumbers among muskmelons, and see whether  
 the melons will not be more *winy*, and better tasted.

*Id.*

With large *wine*-offerings pour'd, and sacred feast.

*Milton.*

The firstlings of the flock are doomed to die;

Rich fragrant *wines* the cheering bowl supply.

*Pope.*

**WINE** is an agreeable spirituous liquor, produced by fermentation from those vegetable substances that contain saccharine matter. A very great number of vegetable substances may be made to afford wine, as grapes, currants, mulberries, elder, cherries, apples, pulse, beans, pease, turnips, radishes, and even grass itself. Hence under the class of wines, or vinous liquors, come not only wines, absolutely so called, but also ale, cyder, &c. But the term wine is more particularly appropriated to the liquor drawn from the fruit of the vine.

When the grapes are ripe, and the saccharine principle is developed, they are then pressed, and the juice which flows out is received in vessels of a proper capacity, in which the fermentation appears, and proceeds in the following manner:—At the end of several days, and frequently after a few hours, according to the heat of the atmosphere, the nature of the grapes, the quantity of the liquid, and the temperature of the place in which the operation is performed, a movement is produced in the liquor, which continually increases; the volume of the fluid increases; it becomes turbid and oily; carbonic acid is disengaged, which fills all the unoccupied part of the vessel; and the temperature rises to 725°. At the end of several days these tumultuous motions subside, the mass falls, the liquor becomes clearer, and is found to be less saccharine, more odorant, and of a red color, from the re-action of the ardent spirit upon the coloring matter of the pellicle of the grape. The wine is usually taken out of the fermenting vessels at the period when all the phenomena of fermentation have subsided. When the mass is settled, the color of the liquor is well developed; when it has become clear, and its heat has disappeared, it is put into casks, where, by a second insensible fermentation, the wine is clarified, its principles combine more

perfectly together, and its taste and smell become more and more developed. Those who import wine in large quantities should attend to the following directions about the treatment of it after it arrives. On landing, the less they are exposed the better; for they are affected by the seasons, and more or less by climate. March and April are the proper times for shipping wines from France, and they will be landed in England and Ireland in the same degree of temperature. The great art in keeping wines is to prevent their fretting, which is done by keeping them in the same degree of heat. In spring and fall the wines in Bourdeaux are subject to changes that may be destructive if not prevented by necessary rackings: these changes are solely the effect of the seasons. If wines are chilled, and of course turn foul, from being shipped and landed in cold weather, they will soon recover by putting them in a warm vault, well covered with saw-dust. As soon as they are in the vault they ought to be covered up. But if shipped and landed in summer, if the smallest degree of fermentation be found on them, it will be requisite to dip the bung cloths in brandy, and leave the bungs loose for some days, to give it time to cool; and if in a fortnight or three weeks the fermentation do not cease, and the wine become bright, it will be proper to rack it (matching the hogsheads well with brimstone), and force it with the whites of eight eggs. If it then become fine, bung it tight, and let it remain so until it is bottled. If wines new landed are wanted soon for the bottle, it will be necessary to force them immediately, and let them remain bunged close for at least a month, to recover from the forcing, or if two months the better; for wines bottled in high order come much sooner into drinking than if bottled when flat, which all wines are after forcing.

Wine must never be bottled the least foul, which produces a tendency to fret; and, if bottled in this state, will never come in order, but may possibly be lost: for this there is no remedy but repeated rackings; and care must be taken (after rinsing the hogsheads well and drawing them) to burn a good piece of match in them. This cools the wine, and there is no danger of hurting the color; for it recovers it in a little time; but, if it did, it is absolutely necessary; for, if wine is suffered to continue on the fret, it will wear itself to nothing. It sometimes happens that wines scuddy and stubborn will not fall with one or even two forcings. It will then be proper to give them five or six gallons of good strong wine, and force them with the whites of a dozen eggs, with a tea-spoonful of sand produced from sawing marble, or a small spoonful of fine salt. Bottled wine in winter should be well covered with saw-dust, and, if the vaults are cold and damp, strew it deep on the floor; if saw-dust is thrown upon the hogsheads, and their sides are bedded some inches thick, it will keep them from the fret. The same treatment is to be regarded with white wines, except that they require to be higher matched, particularly Muscat wines, such as Frontignac, Beziers, &c., which, being often sweetened with honey, are very subject to fret; and these only frequent rackings, with a great deal of brimstone, can cool. Hermitage, from not being sufficiently dried, and possessing more richness than claret, is also very liable to come on the fret, and will require much the same treatment as the Muscat wines. Attention should be had to bottle in fine weather, when the wind is north; but to



avoid cold or frosty weather. The months of April and October are favorable. The best time to bottle port wine is four years after the vintage, and to keep them two years in bottle before you begin to use them. When wines are racked, and the lees immediately passed through flannel bags into close-necked jars, and directly bottled, there will be very little lost by rackings, as the wine when fine may serve for filling up. When wines are destined for warm climates, it may be proper to rinse the hogsheds with brandy; and in bottling many rinse the bottles and corks with it. Wines that have remained a certain time (three or four months) in a vault, and made less or more lee, ought never to be sent into the country without first racking them, otherwise they may be liable to fret, and if bottled in that state, may risk being lost. Wines which may be ordered for immediate drinking will be forced on the shipping, and in a few weeks after they are landed will be fit for the bottle. The forcings proper for claret are the whites of a dozen eggs, beaten up with a tea-spoonful of fine salt, and well worked with a forcing-rod. No bad egg must be used. This is for one hoghead. The forcing for white wine is isinglass dissolved in wine. One ounce is sufficient for two hogsheds. No salt is to be used in forcing the white wines.

Let us now direct our attention to the *chemical* character of wines. All those nutritive, vegetable, and animal matters which contain sugar ready formed, are susceptible of the spirituous fermentation. Thus wine may be made of all the juices of plants, the sap of trees, the infusions and decoctions of farinaceous vegetables, the milk of frugivorous animals; and lastly, it may be made of all ripe succulent fruits: but all these substances are not equally proper to be changed into a good and generous wine.

As the production of alcohol is the result of the spirituous fermentation, that wine may be considered as essentially the best, which contains most alcohol. But, of all substances susceptible of the spirituous fermentation, none is capable of being converted into so good wine, as the juice of the grapes of France, or of other countries that are nearly in the same latitude, or in the same temperature. The grapes of hotter countries, and even those of the southern provinces of France, do indeed furnish wines that have a more agreeable, that is, more of a saccharine taste; but these wines, though they are sufficiently strong, are not so spirituous as those of the provinces near the middle of France: at least from these latter wines the best vinegar and brandy are made. As an example, therefore, of spirituous fermentation in general, we shall describe the method of making wine from the juice of the grapes of France. This juice, when newly expressed, and before it has begun to ferment, is called must, and in common language sweet wine. It is turbid, but has an agreeable and very saccharine taste. It is very laxative; and, when drunk too freely, or by persons disposed to diarrhœas, it is apt to occasion these disorders. Its consistence is somewhat less fluid than that of water, and it becomes almost of a pitchy thickness when dried.

When the must is pressed from the grapes, and put into a proper vessel and place, with a temperature between fifty-five and sixty degrees, very sensible effects are produced in it, in a shorter or longer time, according to the nature of the liquor, and the exposure of the place. It then swells, and

is so rarefied that it frequently overflows the vessel containing it, if this be nearly full. An intestine motion is excited among its parts, accompanied with a small hissing noise and evident ebullition. The bubbles rise to the surface, and at the same time is disengaged a quantity of carbonic acid of such purity, and so subtle and dangerous, that it is capable of killing instantly men and animals exposed to it in a place where the air is not renewed. The skins, stones, and other grosser matters of the grapes, are buoyed up by the particles of disengaged air that adhere to their surface, are variously agitated, and are raised in form of a scum, or soft and spongy crust, that covers the whole liquor. During the fermentation, this crust is frequently raised, and broken by the air disengaged from the liquor which forces its way through it; afterward the crust subsides, and becomes entire as before.

These effects continue while the fermentation is brisk, and at last gradually cease: then the crust, being no longer supported, falls in pieces to the bottom of the liquor. At this time, if we would have a strong and generous wine, all sensible fermentation must be stopped. This is done by putting the wine into close vessels, and carrying these into a cellar or other cool place.

After this first operation, an interval of repose takes place, as is indicated by the cessation of the sensible effects of the spirituous fermentation; and thus enables us to preserve a liquor no less agreeable in its taste, than useful for its reviving and nutritive qualities when drunk moderately. If we examine the wine produced by this first fermentation, we shall find that it differs entirely and essentially from the juice of grapes before fermentation. Its sweet and saccharine taste is changed into one that is very different, though still agreeable, and somewhat spirituous and piquant. It has not the laxative quality of must, but affects the head, and occasions, as is well known, drunkenness. Lastly, if it be distilled, it yields, instead of the insipid water obtained from must by distillation with the heat of boiling water, a volatile, spirituous, and inflammable liquor called spirit of wine or alcohol. This spirit is consequently a new being, produced by the kind of fermentation called the vinous or spirituous. See ALCOHOL.

When any liquor undergoes the spirituous fermentation, all its parts seem not to ferment at the same time, otherwise the fermentation would probably be very quickly completed, and the appearances would be much more striking: hence, in a liquor much disposed to fermentation, this motion is more quick and simultaneous than in another liquor less disposed. Experience has shown that a wine, the fermentation of which is very slow and tedious, is never good or very spirituous; and therefore, when the weather is too cold, the fermentation is usually accelerated by heating the place in which the wine is made. A proposal has been made, by a person very intelligent in economical affairs, to apply a greater than the usual heat to accelerate the fermentation of the wine, in those years in which grapes have not been sufficiently ripened, and when the juice is not sufficiently disposed to fermentation.

A too hasty and violent fermentation is perhaps also hurtful, from the dissipation and loss of some of the spirit; but of this we are not certain. However, we may distinguish, in the ordinary method of making wines of grapes, two periods in the fermentation, the first of which lasts during the appearance



of the sensible effects above-mentioned, in which the greatest number of fermentable particles ferment. After this first effort of fermentation, these effects sensibly diminish, and ought to be stopped, for reasons hereafter to be mentioned. The fermentative motion of the liquors then ceases. The heterogeneous parts that were suspended in the wines by this motion, and render it muddy, are separated and form a sediment called the lees; after which the wine becomes clear: but though the operation is then considered as finished, and the fermentation apparently ceases, it does not really cease; and it ought to be continued in some degree, if we would have good wine.

In this new wine a part of the liquor probably remains, that has not fermented, and which afterwards ferments, but so very slowly, that none of the sensible effects produced in the first fermentation are here perceived. The fermentation, therefore, still continues in the wine, during a longer or shorter time, although in an imperceptible manner; and this is the second period of the spirituous fermentation, which may be called the imperceptible fermentation. We may easily perceive that the effect of this imperceptible fermentation is the gradual increase of the quantity of alcohol. It has also another effect no less advantageous, namely, the separation of the acid salt called tartar from the wine. This matter is therefore a second sediment, that is formed in the wine, and adheres to the sides of the containing vessels. As the taste of tartar is harsh and disagreeable, it is evident that the wine, which by means of the insensible fermentation has acquired more alcohol, and has disengaged itself of the greater part of its tartar, ought to be much better and more agreeable; and, for this reason chiefly, old wine is universally preferable to new wine.

But insensible fermentation can only ripen and meliorate the wine, if the sensible fermentation have regularly proceeded, and been stopped in due time. We know certainly, that if a sufficient time has not been allowed for the first period of the fermentation, the unfermented matter that remains, being in too large a quantity, will then ferment in the bottles or close vessels in which the wine is put, and will occasion effects so much more sensible, as the first fermentation shall have been sooner interrupted: hence these wines are always turbid, emit bubbles, and sometimes break the bottles, from the large quantity of air disengaged during the fermentation.

We have an instance of these effects in the wine of Champagne, and in others of the same kind. The sensible fermentation of these wines is interrupted or rather suppressed, that they may have this sparkling quality. It is well known that these wines make the corks fly out of the bottles; that they sparkle and froth when they are poured into glasses; and lastly, that they have a taste much more lively and more piquant than wines that do not sparkle; but this sparkling quality, and all the effects depending on it, are only caused by a considerable quantity of carbonic acid gas, which is disengaged during the confined fermentation that the wine has undergone in close vessels. This air not having an opportunity of escaping, and of being dissipated as fast as it is disengaged, and being interposed betwixt all the parts of the wine, combines in some measure with them, and adheres in the same manner as it does to certain mineral waters, in which it produces nearly the same effects. When this air is entirely disengaged from these

wines, they no longer sparkle, they lose their piquancy of taste, become mild, and even almost insipid.

Such are the qualities that wine acquires in time, when its first fermentation has not continued sufficiently long. These qualities are given purposely to certain kinds of wine to indulge taste or caprice; but such wines are supposed to be unfit for daily use. Wines for daily use ought to have undergone so completely the sensible fermentation, that the succeeding fermentation shall be insensible, or at least exceedingly little perceived. Wine, in which the first fermentation has been too far advanced, is liable to worse inconveniences than that in which the first fermentation has been too quickly suppressed; for every fermentable liquor is from its nature in a continual intestine motion, more or less strong, according to circumstances, from the first instant of the spirituous fermentation till it is completely purified: hence, from the time of the completion of the spirituous fermentation, or even before, the wine begins to undergo the acid or acetous fermentation. This acid fermentation is very slow and insensible, when the wine is included in very close vessels, and in a cool place: but it gradually advances, so that in a certain time the wine, instead of being improved, becomes at last sour. This evil cannot be remedied; because the fermentation may advance, but cannot be reverted.

Wine-merchants, therefore, when their wines become sour, can only conceal or absorb this acidity by certain substances, as by alkalies and absorbent earths. But these substances give to wine a dark greenish color, and a taste which, though not acid, is somewhat disagreeable. Besides, calcareous earths accelerate considerably the total destruction and putrefaction of the wine. Oxides of lead, having the property of forming with the acid of vinegar a salt of an agreeable saccharine taste, which does not alter the color of the wine, and which besides has the advantage of stopping fermentation and putrefaction, might be very well employed to remedy the acidity of wine, if lead and all its preparations were not pernicious to health, as they occasion most terrible colics, and even death, when taken internally. We cannot believe that any wine-merchant, knowing the evil consequences of lead, should, for the sake of gain, employ it for the purpose mentioned; but, if there be any such persons, they must be considered as the poisoners and murderers of the public. At Alicante, where very sweet wines are made, it is the practice to mix a little lime with the grapes before they are pressed. This, however, can only neutralise the acid already existing in the grape.

If wine contain litharge, or any other oxide of lead, it may be discovered by evaporating some pints of it to dryness, and melting the residuum in a crucible, at the bottom of which a small button of lead may be found after the fusion: but an easier and more expeditious proof is by pouring into the wine some liquid sulphuret. If the precipitate occasioned by this addition to the sulphuret be white, or only colored by the wine, we may know that no lead is contained in it; but if the precipitate be dark colored, brown, or blackish, we may conclude that it contains lead or iron.

The only substances that cannot absorb or destroy, but cover and render supportable the sharpness of wine, without any inconvenience, are sugar, honey, and other saccharine alimentary matters;



but they can succeed only when the wine is very little acid, and when an exceedingly small quantity only of these substances is sufficient to produce the desired effect; otherwise the wine would have a sweetish, tart, and not agreeable taste.

From what is here said concerning the acescency of wine, we may conclude that, when this accident happens, it cannot by any good method be remedied, and that nothing remains to be done with sour wine but to sell it to vinegar-makers, as all honest wine-merchants do.

As the must of the grape contains a greater proportion of tartar than our currant and gooseberry juices do, Dr. Ure has been accustomed, for many years, to recommend in his lectures the addition of a small portion of that salt to our must, to make it ferment into a more genuine wine. Dr. McCulloch has lately prescribed the same addition in his popular treatise on the art of making wine.

The following is Mr. Brande's valuable table of the quantity of spirit in different kinds of wine:—

|                                  | Proportion of spirit per<br>cent. by measure. |
|----------------------------------|---|
| 1. Lissa . . . . .               | 26.47   |
| Ditto . . . . .                  | 24.35   |
| Average                          | 25.41   |
| 2. Raisin wine . . . . .         | 26.40   |
| Ditto . . . . .                  | 25.77   |
| Ditto . . . . .                  | 23.20   |
| Average                          | 25.12   |
| 3. Marsala . . . . .             | 26.3  |
| Ditto . . . . .                  | 25.5  |
| Average                          | 25.9  |
| 4. Madeira . . . . .             | 24.42   |
| Ditto . . . . .                  | 23.93   |
| Ditto (Sercial) . . . . .        | 21.40   |
| Ditto . . . . .                  | 19.41   |
| Average                          | 22.27   |
| 5. Currant wine . . . . .        | 20.55   |
| 6. Sherry . . . . .              | 19.81   |
| Ditto . . . . .                  | 19.83   |
| Ditto . . . . .                  | 18.79   |
| Ditto . . . . .                  | 18.25   |
| Average                          | 19.17   |
| 7. Teneriffe . . . . .           | 19.79   |
| 8. Colares . . . . .             | 19.75   |
| 9. Lachryma Christi . . . . .    | 19.70   |
| 10. Constantia, white, . . . . . | 19.75   |
| 11. Ditto, red, . . . . .        | 18.92   |
| 12. Lisbon . . . . .             | 18.94   |
| 13. Malaga (1666) . . . . .      | 18.94   |
| 14. Bucellas . . . . .           | 18.49   |
| 15. Red Madeira . . . . .        | 22.30   |
| Ditto . . . . .                  | 18.40   |
| Average                          | 20.35   |
| 16. Cape Muschat . . . . .       | 18.25   |
| 17. Cape Madeira . . . . .       | 22.94   |
| Ditto . . . . .                  | 20.50   |
| Ditto . . . . .                  | 18.11   |
| Average                          | 20.51   |
| 18. Grape wine . . . . .         | 18.11   |
| 19. Calceavella . . . . .        | 19.20   |
| Ditto . . . . .                  | 18.10   |
| Average                          | 18.65   |
| 20. Vidonia . . . . .            | 19.25   |
| 21. Alba Flora . . . . .         | 17.26   |
| 22. Malaga . . . . .             | 17.26   |
| 23. White Hermitage . . . . .    | 17.43   |
| 24. Rousillon . . . . .          | 19.00   |
| Ditto . . . . .                  | 17.26   |
| Average                          | 18.13   |

Proportion of spirit per  
cent. by measure.

|   |       |
|---|-------|
| 25. Claret . . . . .  | 17.11 |
| Ditto . . . . .   | 16.32 |
| Ditto . . . . .   | 14.08 |
| Ditto . . . . .   | 12.91 |
| Average   | 15.10 |
| 26. Malmsey Madeira . . . . .   | 16.40 |
| 27. Lunel . . . . .   | 15.52 |
| 28. Sheraaz . . . . .   | 15.52 |
| 29. Syracuse . . . . .  | 15.28 |
| 30. Sauterne . . . . .  | 14.22 |
| 31. Burgundy . . . . .  | 16.60 |
| Ditto . . . . .   | 15.22 |
| Ditto . . . . .   | 14.53 |
| Ditto . . . . .   | 11.95 |
| Average   | 14.57 |
| 32. Hock . . . . .  | 14.37 |
| Ditto . . . . .   | 13.00 |
| Ditto (old in cask) . . . . .   | 8.88  |
| Average   | 12.08 |
| 33. Nice . . . . .  | 14.63 |
| 34. Barsac . . . . .  | 13.86 |
| 35. Tent . . . . .  | 13.30 |
| 36. Champagne (still) . . . . .   | 13.80 |
| Ditto (sparkling) . . . . .   | 12.80 |
| Ditto (red) . . . . .   | 12.56 |
| Ditto (ditto) . . . . .   | 11.30 |
| Average   | 12.61 |
| 37. Red Hermitage . . . . .   | 12.32 |
| 38. Vin de Grave . . . . .  | 13.94 |
| Ditto . . . . .   | 12.80 |
| Average   | 13.37 |
| 39. Frontignac . . . . .  | 12.79 |
| 40. Cote Rotie . . . . .  | 12.32 |
| 41. Gooseberry wine . . . . .   | 11.84 |
| 42. Orange wine, a verage of six samples<br>made by a London manufacturer . . . . . | 11.26 |
| 43. Tokay . . . . .   | 9.88  |
| 44. Elder wine . . . . .  | 9.87  |
| 45. Cyder, highest average . . . . .  | 9.87  |
| Ditto, lowest ditto . . . . .   | 5.21  |
| 46. Perry, average of four samples . . . . .  | 7.26  |
| 47. Mead . . . . .  | 7.32  |
| 48. Ale (Burton) . . . . .  | 8.88  |
| Ditto (Edinburgh) . . . . .   | 6.20  |
| Ditto (Dorchester) . . . . .  | 5.56  |
| Average   | 6.87  |
| 49. Brown stout . . . . .   | 6.80  |
| 50. London porter (average) . . . . .   | 4.20  |
| 51. London small beer (ditto) . . . . .   | 1.28  |
| 52. Brandy . . . . .  | 53.39 |
| 53. Rum . . . . .   | 53.68 |
| 54. Gin . . . . .   | 51.60 |
| 55. Scotch Whisky . . . . .   | 54.32 |
| 56. Irish ditto . . . . .   | 53.90 |

WING, *n. s., v. a., &c.* Sax. *geþing*; Danish *WINGED, adj.* [*v. n.*] and Swed. *winge*. The WING'SHELLS, *n. s.* } limb of a bird by which  
WING'Y *adj.* } it flies; flight; motive to  
flight; the flank or side of a building or army;  
any side-piece: to wing is to furnish with wings; to  
take flight; transport by flight: winged, furnished  
with wings; swift: wing-shell, a shell that covers  
the wings of some insects: wingy, having or resembling  
wings.

Wing, cartnave, and bushel, peck, ready at hand.  
Tusser.

As Venus' bird, the white swift lovely dove,  
Doth on her wings her utmost swiftness prove,  
Finding the gripe of falcon fierce not fur. Sidney.

The footmen were Germans, to whom were joined as  
wings certain companies of Italians. *Knolles.*

Ignorance is the curse of God,  
Knowledge the wing wherewith we fly to heaven.

*Shakspeare.*

I have pursued her as love hath pursued me, on the  
wing of all occasions. *Id.*

Fearful commenting

Is leaden servitor to dull delay;  
Delay leads impotent and snail-paced beggary:

Then fiery expedition be my wing,

Jove's mercury, and herald for a king.

*Id.*

Hie, good Sir Michael, bear this sealed brief

With winged haste to the lord marshal.

*Id.*

A spleenless wind so stretch

Her wings to waft us, and so urged our keel. *Chapm.*

The speed of gods

Time counts not, though with swiftest minutes winged.  
*Milton.*

The winged lion's not so fierce in fight,

As Libri's hand presents him to our sight. *Waller.*

And straight, with in-born vigour, on the wing

Like mountain larks, to the new morning sing. *Dryd.*

Warmed with more particles of heavenly flame,

He winged his upper flight, and soared to fame;

The rest remained below, a crowd without a name.

*Id.*

The left wing put to flight,

The chiefs o'rborn, he rushes on the right. *Id.*

The plough proper for stiff clays is long, large, and  
broad, with a deep head, and a square earth-board,  
the coulter long, and very little bending, with a very  
large wing. *Mortimer.*

The long-shelled goat chaffer is above an inch long,  
and the wing-shells of themselves an inch, and half an  
inch broad, so deep as to come down below the belly on  
both sides. *Grew.*

They spring together out, and swiftly bear

The flying youth through clouds of yielding air;

With wingy speed out-strip the eastern wind,

And leave the breezes of the morn behind. *Addison.*

Struck with the horror of the sight,

She turns her head, and wings her flight. *Prior.*

The prince of augurs, Helitherses rose;

Prescient he viewed th' aerial tracts, and drew

A sure presage from ev'ry wing that flew. *Pope.*

Who knows but he, whose hand the lightning forms,

Who heaves old ocean, and who wings the storms,

Pours fierce ambition into Cæsar's mind,

Or turns young Ammon loose to scourge mankind?

*Id.*

WING, in zoology, is that part of a bird, insect,  
&c., whereby it is enabled to fly. See BEE, BRD,  
ENTOMOLOGY, and ORNITHOLOGY.

WINGS, in military affairs, are the two flanks or  
extremes of an army, ranged in form of battle;  
being the right and left sides thereof.

WINGATE (Edmond), an eminent mathematician, born in Bedfordshire in 1593, and educated at Queen's College, Oxford; whence he removed to Gray's Inn. He was appointed English teacher to king Charles I.'s queen; yet he took the covenant, and was elected into the parliament called by Cromwell. He published 1. The Use of the Rule of Proportion, commonly called Gunter's Scale. 2. Natural and Artificial Arithmetic, 8vo. 3. Tables of Logarithms. 4. Ludus Mathematicus. 5. The Exact Surveyor; and several tracts. He died in 1656.

WINGED FEATHER GRASS. See STYPA.

WINK, *v. n. & n. s.* } Sax. pincean; Teutonic

WINKER, *n. s.* } wincken; Swedish wincka.

WINK'INGLY, *adv.* } To shut the eyes; hint or  
direct by the eye; connive; tolerate; forbear to

punish; be dim: the act of winking; hint given  
the noun substantive and adverb correspond.

Her wink each bold attempt forbids. *Sidney.*

They be better content with one that will wink at  
their faults, than with him that will reprove them.

*Whitgift.*

Let's see thine eyes; wink now, now open them:

In my opinion yet thou seest not well. *Shakspeare.*

Since I received command to do this business

I have not slept one wink. *Id.*

I, for winking at your discords too,

Have lost a brace of kinsmen. *Id.*

The king gave him great gifts, and winked at the  
great spoil of Bosworth-field, which came almost  
wholly to this man's hands. *Bacon.*

If one beholdeth the light, he vieweth it winkingly,  
as those do that are purblind; but, if any thing that is  
black, he looketh upon it with a broad and full eye.

*Peucham.*

The Scripture represents wicked men as without un-  
derstanding: not that they are destitute of the natural  
faculty; they are not blind, but they wink. *Tillotson.*

The sullen tyrant slept not all the night,

But lonely walking by a winking light,  
Sobbed, wept, and groan'd, and beat his withered  
breast. *Dryden.*

Obstinacy cannot be winked at, but must be subdued.

*Locke.*

When you shoot and shut one eye,

You cannot think he would deny

To lend the other friendly aid,

Or wink, as coward and afraid. *Prior.*

A set of noddors, winkers, and whisperers whose bu-  
siness is to strangle all other offspring of wit in their  
birth. *Pope.*

The stock-jobber thus from 'Change-alley goes down,  
And tips you the freeman a wink;

Let me have but your vote to serve for the town,

And here is a guinea to drink. *Swift.*

WINNIPIC LAKE, a lake of North America in  
Upper Canada, north-west of Lake Superior. It lies  
between 50° 30' and 54° 32' N. lat., and between 95°  
50' and 99° 30' W. long. It is 217 miles long, in-  
cluding Baskescoggan, or Play-Green Lake, its  
northern arm; and is 100 miles broad from the Ca-  
nadian House on the east side to Sable River on the  
west side. It receives the waters of a number of  
small lakes, and exhibits a number of small isles.  
The lands on its banks are said by Carver and other  
travellers to be very fertile, producing vast quan-  
tities of wild rice and the sugar-tree in great  
plenty. The climate is considerably more temper-  
ate here than it is upon the Atlantic coast, 10°  
farther southward.

WINNIPIC RIVER, a river of North America,  
in Upper Canada, which runs north-west into the  
lake of the same name. It is an outlet for the  
waters of a vast chain of lakes, the chief of which  
are La Pluie and Lake of the Woods, and is a  
large body of water, interspersed with numerous  
islands.

WIN'NOW, *v. a. & v. n.* Sax. pinþrian; Belg.  
wannen; Latin evanno. To ventilate; to separate by  
means of the wind: to part the grain from the chaff.

Were our royal faith martyrs in love,  
We shall be winnowed with so rough a wind,  
That even our corn shall seem as light as chaff,  
And good from bad find no partition. *Shakspeare.*

Now on the polar winds, then with quick fan  
Winnows the buxom air. *Milton.*

Winnow well this thought, and you shall find  
'Tis light as chaff that flies before the wind. *Dryden.*

WINSCHOMB (John), a famous English c.o-  
thier, the most eminent in England under Henry



VIII. He had 100 looms constantly employed; and let out a troop of his men to the battle of Flodden.

WINSLOW (James Benignus), M. P., a very celebrated Danish anatomist, a nephew of the famous Steno, born in 1669. He studied under Du Verney at Paris, became a convert to the Catholic faith, and was baptised by Bossuet, bishop of Meaux. He became a member of the faculty of physicians, and of the Royal Academy of Paris, and demonstrator in the king's gardens. He wrote, 1. A Course of Anatomy, in 4to. 2. A Dissertation on the Uncertainty of the Signs of Death, 2 vols. 12mo. 3. A Treatise on the diseases of the Bones; and other works of value. He died in 1760.

WINSTANLEY (William) was originally a barber. He wrote, 1. The Lives of the Poets. 2. Select Lives of England's Worthies. 3. Historical Rarities. He died in 1690.

WINSTON (Thomas), M.D., born in 1575, and educated at Clare Hall, Cambridge. In 1602 he went abroad, and graduated at Padua. On his return he settled in London, and was chosen professor of physic in Gresham College, where he died in 1655. He published his Anatomical Lectures in 1650.

WINTER, *n. s., v. n., & v. a.*

WINTERBEATEN, *adj.*

WINTERLY, *adj.*

WINT'RY, *adj.*

of the year: to pass the winter; feed or manage in the winter: winterbeaten is harassed by the season: winterly and wintry, like, or suitable to, winter.

The fowls shall summer upon them, and all the beasts of the earth shall *winter* upon them. *Isiah.*

Though he were already steep into the *winter* of his age, he found himself warm in those desires, which were in his son far more excusable. *Sidney.*

He compareth his careful case to the sad season of the year, to the frosty ground, to the frozen trees, and to his own *winterbeaten* flock. *Spenser.*

After summer evermore succeeds  
The barren *winter* with his nipping cold. *Shakspeare.*

If 't be summer news,

Smile to 't before; if *winterly*, thou need'st

But keep that countenance still. *Id.*

The cattle generally sold for slaughter within, or exportation abroad, had never been handled or *wintered* at hand-meat. *Temple.*

The two beneath the distant poles complain  
Of endless *winter* and perpetual rain. *Dryden.*

He saw the Trojan fleet dispersed, distressed,

By stormy winds, and *wintry* heaven oppressed. *Id.*

Young lean cattle may by their growth pay for their *wintering*, and so be ready to fat next summer. *Mort.*

He that makes no reflections on what he reads, only loads his mind with a rhapsody of tales, fit in *winter*-nights for the entertainment of others. *Locke.*

*Winter* is that season of the year wherein the days are shortest. *Watts.*

The storms of *wintry* Time shall quickly pass,  
And one unbounded Spring encircle all. *Thomson.*

WINTER, one of the four seasons or quarters of the year. See SEASON, &c. Winter commences on the day when the sun's distance from the zenith of the place is greatest, and ends on the day when its distance is at a mean between the greatest and least. Under the equator, the winter as well as other seasons return twice every year; but all other places have only one winter in the year; which in

the northern hemisphere begins when the sun is in the tropic of Capricorn, and in the southern hemisphere when in the tropic of Cancer; so that all places in the same hemisphere have their winter at the same time.

WINTER BERRY. See PRINOS.

WINTER BLOOM, a species of *azaea*.

WINTER CHERRY. See PHYSALIS.

WINTER CITRON is a species of *citrus*.

WINTER CRESS, a species of *erysimum*.

WINTER GREEN. See PYROLA.

WINTER GREEN CHICKWEED. See TRIENTALIS.

WINTER GREEN, ivy-flowering, is a species of *kalmia*.

WINTERA, in botany, a genus of plants of the class of polyandria, and order of pentagynia; and in the natural system arranged under the twelfth order, *holoracemæ*. The calyx is three-lobed; there are six or twelve petals; there is no style; the fruit is a berry, which is club-shaped as well as the germen. There are two species, viz.—1. *W. aromatica*, is one of the largest forest trees upon Terra del Fuego; it often rises to the height of fifty feet. Its outward bark is on the trunk gray and very little wrinkled, on the branches quite smooth and green. The branches do not spread horizontally, but are bent upwards and form an elegant head of an oval shape. The peduncles, or foot-stalks for the flowers, come out of the axillæ foliorum, near the extremity of the branches; they are flat, of a pale color, twice or three times shorter than the leaves; now and then they support only one flower, but are oftener near the top divided into three short branches, each with one flower. The bractæ are oblong, pointed, concave, entire, thick, whitish, and situated one at the basis of each peduncle. There is no calyx; but in its place the flower is surrounded with a spathaceous gem of a thick leathery substance, green, but reddish on the side which has faced the sun; before this gem bursts, it is of a round form, and its size is that of a small pea. It bursts commonly, so that one side is higher than the other, and the segments are pointed. The corolla consists always of seven petals. 2. *W. Granadensis* is a native of Granada.

WINTRINGHAM (Sir Clifton), Bart., M.D., and F.R.S., an eminent physician, the son of Dr. Clifton Winttingham, physician at York, who gave him a liberal education, and died in 1748. In 1749 he was appointed physician to the duke of Cumberland, and afterwards to the king, who knighted him. He published, 1. An Experimental Enquiry into some parts of the Animal Structure, 1740. 2. An Enquiry into the Exility of the vessels of the Human Body, 1743. 3. De Morquibusdam, 2 vols. 1782 and 1791. 4. An Accurate edition of Dr. Mead's *Monita et Præcepta Medica*; cum multis notis. He died at London, 10th January, 1794.

WINWOOD (Sir Ralph) was born in 1565, at Aynhoe in Northampton, and educated at Magdalen College, Oxford. He became secretary to Sir Henry Neville, minister at Paris, in 1589. In 1607 king James knighted him, and sent him ambassador to Holland, and in 1614 made him secretary of state and a privy counsellor. He died in 1617; and his Memoirs of State Affairs were published soon after in 1 vol. folio.

WIPE, *v. a. & n. s.* } Sax. *pipan*, Belg. *wip*

WI'PER, *n. s.* } To cleanse by rubbing;

strike gently off; clear away; efface (taking out); touch: the act of wiping; a blow; stroke; trick; an instrument or agent of wiping.

The next bordering lords commonly encroach one upon another, as one is stronger, or lie still in wait to wipe them out of their lands. *Spenser.*

Such a handkerchief,  
I'm sure it was your wife's, did I to-day  
See Cassio wipe his beard with. *Shakespeare.*

Let me wipe off this honourable dew,  
That silvery doth progress on thy cheeks. *Id.*

The maids and their makes,  
At dancing and wakes,  
Had their napkins and posies,  
And the wipers for their noses. *Ben Jonson*  
Calumniate stoutly; for, though we wipe away with  
never so much care the dirt thrown at us, there will be  
left some sullage behind. *Decay of Piety.*

She a gentle tear let fall  
From either eye, and wiped them with her hair. *Milton.*  
Take one in whom decrepid old age has blotted out  
the memory of his past knowledge, and clearly wiped out  
the ideas his mind was formerly stored with. *Locke.*

A young man, having suffered many tortures, escaped  
with life, and told his fellow Christians, that the pain  
of them had been rendered tolerable by the presence of  
an angel, who stood by him and wiped off the tears and  
sweat. *Addison.*

To statesmen would you give a wipe  
You print it in Italic type:  
When letters are in vulgar shapes,  
'Tis ten to one the wit escapes. *Swift.*

WIPE, a town and river of Prussia, in Samland.

WIRE, *n. s.* } French *vire*, to draw  
WIRE'DRAW, *v. a.* } round.—Skinner. Metal  
WIRE'DRAWER, *n. s.* } drawn into slender  
threads: to spin into wire; draw out into length  
literally or metaphorically.

Thou shalt be whipt with wire, and stewed in brine,  
Smarting in lingering pickle. *Shakespeare.*

Her veil and mantle pluckt they off by force,  
And bound her tender arms in twisted wire. *Fairfax.*  
And the cherubick host, in thousand quires,  
Touch their immortal harps of golden wires. *Milton.*

Those who have need of unmixed silver, as gilders  
and wire-drawers, must, beside an equal weight of silver  
mixed with other metals, give an overplus to reward  
the refiner's skill. *Locke.*

I have been wrongfully accused, and my sense wire-  
drawn into blasphemy. *Dryden.*

WIRE, a piece of metal drawn successively  
through a number of iron plate holes into a thread,  
of a fineness answerable to the last hole it passed  
through. See GOLD WIRE, and WIRE-DRAWING

WIRE, one of the small Orkney Islands, separated  
from Rousay by a strait one mile broad.

WIRE DRAWING. Wires are frequently drawn  
so fine as to be wrought along with other threads  
of silk, wool, flax, &c. The metals most com-  
monly drawn into wire are gold, silver, copper, and  
iron. Gold wire is made of cylindrical ingots of  
silver covered over with gold, and thus drawn  
successively through a vast number of holes, each  
smaller and smaller, till at last it is brought to a  
fineness exceeding that of a hair. Before it be  
reduced to this excessive fineness, it is drawn  
through above 140 different holes; and is every  
time rubbed over with wax, both to facilitate its  
passage, and to prevent the gold from being rub-  
bed off. That admirable ductility which is one of  
the distinguishing characters of gold is no where  
more conspicuous than in gilt wire. A cylinder of  
forty-eight ounces of silver, with a coat of gold

only weighing one ounce, as Dr. Halley informs  
us, is usually drawn into a wire two yards of which  
weigh no more than forty-nine grains, and one  
single grain of gold covers the ninety-eight yards;  
so that the 10,000th part of a grain is above one-  
eighth of an inch long.

WIRKSWORTH, a market town and parish in  
the hundred of the same name, Derbyshire, twelve  
miles N. N. W. of Derby, and 139 north-west by  
north of London.

WIRLEY (William), *rouge-croix* poursuivant  
of arms, published *The True Use of Arms* showed  
by History, and plainly proved by Example, 4to.  
He died in 1618.

WIRTEMBERG, a state of South West Ger-  
many, which, since 1806, has borne the title of  
kingdom. It forms part of the old circle of Suabia,  
having Bavaria on the east, and the long narrow  
territory of Baden on the west. It extends from  
long. 8° 7' to 10° 30' E., lat. 45° 36' to 49° 45' N.  
Its oblong form, extending from north to south, is  
similar to that of the principality of Wales; and  
its area, about 8000 square miles, is not much  
greater; but its soil is far more fertile, and its  
population is at present (1822) not under 1,400,000.  
Its territorial division is into the four circles of  
the Jaxt, the Neckar, the Black Forest, and the  
Danube. These are farther divided into twelve  
small counties, each of which is subdivided into  
bailiwicks. The foundation of this state was the  
old duchy of Wirtemberg, augmented, since 1801,  
by various towns of the empire acquired, and  
abbeys, priories, and other ecclesiastical posses-  
sions secularised in the present age. The towns of  
Wirtemberg are thinly scattered; the principal  
are Stuttgart, the capital, containing 22,000 in-  
habitants; Ulm 15,600; Tubingen 5700; Hall  
5500; Ludwigsburg 5500; Biberach 4400; Kirch-  
heim 4100; Schorndorf 3500; Calw 3400; Creil-  
sheim 3100.

The great natural features of this country are  
masses or ranges of mountains; one called the  
Black Forest extending along the western frontier,  
in a line nearly parallel to the course of the Rhine;  
the other, less known out of Germany, called the  
Alp, or Alb, an insulated range of rocky hills,  
destitute of wood, and, in some measure, of ver-  
dure, which begins near the small town of Rotweil,  
and traverses the kingdom in a north-east direction.  
On these lofty tracts the climate is cold and bleak,  
but the rest of the country is covered with emi-  
nences or hills of moderate elevation, intersected  
by pleasant valleys, which enjoy a climate fully as  
mild and steady as similar parallels of latitude in  
the north of France, viz. Champagne, Picardy, and  
Normandy. The two principal rivers are the  
Danube and Neckar. The other rivers are the  
Enz, the Muhr, the Kocker, the Jaxt, and the Tau-  
ber; the lake of Constance borders an angle of the  
southern extremity of the kingdom.

On the whole this is one of the most fertile tracts  
in Germany. In the level districts of the north,  
corn of all kinds succeeds extremely well; but the  
rugged surface of the Black forest is fit only for the  
pasture of cattle; that of the Alb for sheep. Po-  
tatoes, hemp, and flax, are cultivated in various  
parts, particularly in the grounds of medium eleva-  
tion. Fruits of various kinds abound throughout  
the country; and complete woods of apple and  
pear trees are to be seen in different places. The  
climate has sufficient warmth for the cultivation of



the grape; and the native vines have been improved by the introduction of shoots from France, the north of Italy, Hungary, and even from islands in the Mediterranean. The best qualities of the Wirtemberg wine are known in England under the name of Neckar wine. The Black Forest produces abundance of pine and fir, of which considerable quantities are exported. The mineral products of the mountains are iron, silver, copper, coal, and porcelain; but the quantity as yet extracted from the mines is small, except in the case of iron. The manufactures consist of linen and woollen; there are also iron-works, but on a small scale.

The king of Wirtemberg is a member of the Germanic confederation, and holds the sixth place in the diet. The order of succession to the throne, the regulations in the event of a minority, and other fundamental provisions, were determined by a royal ordinance of January 1st, 1808; but a much longer time and more animated discussions were necessary to define the relative power of the sovereign and his nobility. Matters remained in an unsettled state until 1819, when a mutual compromise took place, and a new constitution was agreed on, essentially free in its principles. The executive power is vested in the monarch, controlled by a representative body. The titled classes are numerous, and still possess extensive privileges; those who had formerly local sovereignty retaining a share of judicial power, which renders necessary here the same system of appeal as in other parts of Germany. The aggregate revenue is £700,000.

The dukes of Wirtemberg were Protestant until 1772, when the reigning prince became a Catholic; giving, however, to his representative body the most solemn pledges that no change should be introduced into the religious establishment. In the wars of the French revolution, Wirtemberg was repeatedly traversed by the hostile armies; its territory was in 1796 the ground chosen for conflicts in the advance, as well as in the celebrated retreat, of Moreau; in 1799 it was the scene of the defeat of the French under Jourdan; in 1800 of their renewed success under Moreau. The treaty of Luneville (February 1801) was followed next year by a treaty of indemnity, when it suited the politics of France to secure to the duke of Wirtemberg an acquisition of territory, and the rank of elector in the German empire. A similar policy led to a farther extension of his dominions, on the peace of Presburg in December 1805; and, on joining the confederation of the Rhine in 1806, the royal title, with some additional territory, was conferred on him. These honors and acquisitions were necessarily followed by an implicit obedience to the French government; and the Wirtembergers, like their Bavarian neighbours, were doomed to lose the flower of their troops in Russia in 1812. In the following year the remainder of the forces fought under the French banners until the evacuation of Germany, when the allies, having engaged to serve the king in his various acquisitions, received his support in the invasion of France.

WIRY. See WIERY.

WIS, *v. a.* Pret. and part. pass. wist. Germ. *wissen*; Belg. *wysen*. To think; imagine. Obsolete.

When Mammon saw his purpose mist,  
Him to entrap unware, another way he wist. *Spenser.*

There be fools alive, I wis,  
Silvered o'er, and so was this.

*Shakspeare.*

WISBEACH, a sea-port and market-town in the Isle of Ely, Cambridgeshire, situated on the river Nen or Nene, over which is a stone bridge, eight miles north of March, and ninety north by east of London. The church is a singularly constructed building, having two naves and two aisles. The different religious denominations have here places of worship; and in the town is a free and other schools, for the education of youth. Here are also a theatre, a ball and assembly rooms, excellent market cross, and a custom house. The principal trade of Wisbeach is in coals, corn, timber, and wine; a canal which opens a communication with Norfolk and Suffolk, and the western counties, has very considerably promoted its prosperity. Sheep and oxen are fattened in great numbers in the neighbourhood, and sent to London. It is governed by ten burgesses, and has six annual fairs. Here was formerly a castle, a residence of the bishop of Ely; but the whole property and gardens have been lately purchased and converted into streets.

WISCHEART (George), D. D., born in 1609 and educated at Edinburgh. He entered into episcopal orders, and became chaplain to the great marquis of Montrose, whom he attended in his last expedition, was taken prisoner, and narrowly escaped death. In 1660 he was made bishop of Edinburgh. He wrote a very curious History of the Wars in Scotland, and of the Marquis of Montrose, in 1 vol. 8vo. He died at Edinburgh in 1669.

WISE, *adj. & n. s.*

WIS'DOM, *n. s.*

WISE'ACRE,

WISE'LY, *adv.*

WISE'NESS, *n. s.*

ance; mode (obsolete): wisdom is superior practical knowledge; judicious conduct: wiseacre, a satirical name for a dunce: the adverb and noun substantive correspond with the adjective.

Speak unto all that are wise-hearted, whom I have filled with the spirit of wisdom, that they may make Aaron's garments. *Exod. xxviii. 3.*

On this wise ye shall bless Israel. *Numb. vi. 23.*

They are wise to do evil, but to do good they have no knowledge. *Jer. iv. 22.*

Ere we farther pass, I will devise

A passport for us both, in fittest wise. *Spenser.*

No less deserveth his wittiness in devising, his pithiness in uttering, his pastoral rudeness, and his moral wiseness. *Id.*

That which moveth God to work is goodness, and that which ordereth his work is wisdom, and that which perfecteth his work is power. *Hooker.*

As from senses reason's work doth spring,

So many reasons understanding gain,

And many understandings knowledge bring,

And by much knowledge wisdom we obtain. *Davies.*

He hath a wisdom that doth guide his valour

To act in safety. *Shakspeare.*

There was an old fa' woman even now with me.

—Pray, was 't not the wise woman of Brainford? *Id.*

It must be a wise Being that is the cause of those wise effects. *Wilkins.*

Heaven is for thee too high; be lowly wise. *Milton.*

Doubt not but God

Hath wiselier armed his vengeful ire

Wisdom is that which makes men judge what are the best ends, and what the best means to attain them. *Id.*

*Temple.*

All the writings of the ancient Goths were composed in verse, which were called runes, or viises, and from thence the term of *wise* came. *Id.*

He sits like discontented Damocles,  
When by the sportive tyrant *wisely* shown  
The dangerous pleasure of a flattered throne. *Dryden.*

Why, says a *wiseacre* that sat by him, were I as the king of France, I would scorn to take part with the footmen. *Addison.*

Admitting their principles to be true, they act *wisely*: they keep their end, evil as it is, steadily in view. *Rogers.*

**WISDOM** usually denotes a higher and more refined notion of things immediately presented to the mind, as it were by intuition, without the assistance of ratiocination. Sometimes the word is more immediately used in a moral sense, for what we call prudence or discretion, which consists in the soundness of the judgment, and a conduct answerable thereto.

**WISDOM OF SOLOMON**, one of the books of the apocrypha. It abounds with Platonic language, and was probably written after the Caballistic philosophy was introduced among the Jews.

**WISE** (Francis), B. D. and F. S. A., was fellow of Trinity College, Oxford, and assistant to Dr. Hudson in the Bodleian library. He became rector of Rotherfield Grays in Oxfordshire, keeper of the archives of the university, and Radcliffe librarian. He published *Annales Ælfridi Magni*, 4to.; *Enquiries concerning the First Inhabitants of Europe*, 4to.; and *Observations on the fabulous Times*, 4to. He died in 1677.

**WISH**, *v. n.*, *v. a.*, & *n. s.* } Sax. *pircean*. To  
**WISHER**, *n. s.* } have strong desire;  
**WISHFUL**, *adj.* } long; be disposed  
**WISHFULLY**, *adv.* } or inclined; to long  
for; desire; recommend by desiring; ask; a longing desire; desire expressed; thing desired: the derivatives all correspond.

They have more than heart could *wish*. *Ps. lxxiii. 7.*

*Wishers* and woulders are never good householders.

*Proverbs.*

I *wish* it may not prove some ominous foretoken of misfortune, to have met with such a miser as I am. *Sidney.*

With half that *wish* the *wisher's* eyes he pressed.

*Shakspeare.*

From Scotland am I stolen, even of pure love,  
To greet mine own land with my *wishful* sight. *Id.*

Had I as many sons as I have hairs,  
I would not *wish* them to a fairer death. *Id.*

Nor could I see a soile, where e'er I came,  
More sweete and *wishfull*. *Chapman.*

Digby should find the best way to make Antrim  
communicate the affair to him, and to *wish* his assistance. *Clarendon.*

What next I bring shall please thee; be assured,  
Thy likeness, thy fit help, thy other self,  
Thy *wish*, exactly to thy heart's desire. *Milton.*

A *wish* is properly the desire of a man sitting or lying still; but an act of the will is a man of business vigorously going about his work. *South's Sermons.*

They are ships prepared by my command,  
That shall convey you to the *wished-for* port. *Addison.*

I admire your whig principles of resistance in the spirit of the Barcelonians: I join in your *wish* for them. *Pope.*

**WISP**, *n. s.* Swed. and Belg. *wisp*. A small bundle, as of hay or straw.

A *wisp* of straw for a ballad.

*Shakspeare.*

A gentleman would fast five days, without meat, bread, or drink; but the same used to have continually a great *wisp* of herbs that he smelled on. *Bacon.*

Jews, who their whole wealth can lay  
In a small basket, on a *wisp* of hay.

*Dryden.*

**WISSING** (William), an eminent portrait painter, born at Amsterdam in 1656. He was a disciple of Dodraens, and on coming to London was employed by Sir Peter Lely, whose manner he imitated. He painted most of the royal family, and rivalled Kneller. He died in 1687.

**WISTFUL**, *adj.* } From Wis. Attentive;  
**WISTFULLY**, *adv.* } earnest; full of thought or desire: the adverb corresponding.

With that he fell again to pry

Through perspective more *wistfully*.

*Hudibras.*

Why, Grubbinel, dost thou so *wistful* seem?

*Gay.*

There's sorrow in thy look.

Lifting up one of my sashes, I cast many a *wistful* melancholy look towards the sea. *Swift.*

**WIT**, *v. n.* & *n. s.* } Sax. *geseit*, from  
**WITCRACKER**, *n. s.* } *piran*, to know; Belg.  
**WITLESS**, *adj.* } *wetan*; Mod. Gothic  
**WIT'LING**, *n. s.* } *witan*. To know;  
**WIT'ICISM**, } used now only in the  
**WIT'Y**, *adj.* } phrase 'to wit,' i. e.  
**WIT'ILY**, *adv.* } to make known, that  
**WIT'INESS**, *n. s.* } is to say: the mental  
faculties; the intellect; the imagination; fancy; sentiments produced by rapid fancy or lively imagination; a man of such fancy: in the plural, sound mind or understanding: contrivance; stratagem: a witcracker and witting is a retailer of wit: witticism, a smart or witty saying: witty, smart; acute; fanciful: the adverb and noun substantive correspond.

No less deserveth his *wittiness* in devising, his pithiness in uttering, his pastoral rudeness, and his moral wisdom. *Spenser.*

Why then should *witless* man so much misween

That nothing is but that which he hath seen? *Id.*

There is an officer, to *wit*, the sheriff of the shire, whose office is to walk up and down his bailiwick. *Id.*

How can it chuse but bring the simple to their *wits'* end? how can it chuse but vex and amaze them? *Hooker.*

Yet are these feet, whose strengthless stay is numb,  
Unable to support this lump of clay,

Swift-winged with desire to get a grave;

As *wit*ting I no other comfort have. *Shakspeare.*

The king your father was reputed for

A prince most prudent, of an excellent

And unmatched wit and judgment. *Id.*

The old hermit, that never saw pen and ink, very *wittily* said to a niece of king Gordubuck, that that is, is. *Id.*

I am not only *witty* in myself, but the cause that *wit* is in other men. *Id.*

A college of *witcrackers* cannot flout me out of my humour; dost thou think I care for a satire or an epigram? *Id.*

Will puts in practice what the *wit* deviseth;

Will ever acts, and *wit* contemplates still;

And, as from *wit* the power of wisdom riseth,

All other virtues daughters are of will.

Will is the prince, and *wit* the counsellor

Which doth for common good in counsel sit;

And, when *wit* is resolved, will lends her power

To execute what is advised by *wit*. *Davies.*

His works become the trippery of *wit*. *Ben Jonson.*

He kept us slaves, by which we fitly prove

That *witless* pity breedeth fruitless love. *Fairfax.*

Hence 'tis a *wit*, the greatest word of fame,

Grows such a common name;

And *wits* by our creation they become,

Just so as titular bishops made at Rome. *Conley.*

No man in his *wits* can make any doubt whether there



be such things as motion, and sensation, and continuity of bodies.

*Witkins.*

Sleights from his wit and subtlety proceed.

*Milten.*

Wickedness is voluntary frenzy, and every sinner does more extravagant things than any man that is crazed and out of his wits, only that he knows better what he does.

*Tillotson.*

The definition of wit is only this, that it is a propriety of thoughts and words; or, in other terms, thoughts and words elegantly adapted to the subject.

*Dryden.*

But is there any other beast that lives,

Who his own harm so wittily contrives?

*Id.*

We have a libertine fooling even in his last agonies, with a witticism between his teeth, without any regard to sobriety and conscience.

*L'Estrange.*

Intemperate wits will spare neither friend nor foe, and make themselves the common enemies of mankind.

*Id.*

Lewd, shallow, hair-brained huffs make atheism, and contempt of religion, the only badge and character of wit.

*South.*

Those half-learned wittlings, numerous in our isle As half-formed insects on the banks of Nile.

*Pope.*

He is full of conceptions, points of epigram, and witticisms, all which are below the dignity of heroic verse.

*Addison.*

No man in his wits can seriously think that his own soul hath existed from all eternity.

*Bentley.*

Nought but a genius can a genius fit;

A wit herself, Amelia weds a wit.

*Young.*

WIT is a quality of certain thoughts and expressions much easier perceived than defined. According to Mr. Locke, wit lies in the assemblage of ideas, and putting those together with quickness and variety wherein can be found any resemblance or congruity, thereby to make up pleasant pictures and agreeable visions to the fancy. Mr. Addison limited this definition considerably, by observing, that every resemblance of ideas does not constitute wit, but those only which produce delight and surprise. Mr. Pope defined wit to be a quick conception and an easy delivery; while, according to a late writer, it consists in an assimilation of distant ideas. The word wit originally signified wisdom. A witte was anciently a wise man. See WITENAGEMOT. So late as the reign of Elizabeth, a man of pregnant wit, of great wit, was a man of vast judgment. We still say, in his wits, out of his wits, for in or out of sound mind.

It is evident that wit excites in the mind an agreeable surprise, and that this is owing entirely to the strange assemblage of related ideas presented to the mind. This end is effected, 1. By debasing things pompous or seemingly grave; 2. By aggrandising things little or frivolous; 3. By setting ordinary objects in a particular and uncommon point of view, by means not only remote but apparently contrary. Of so much consequence are surprise and novelty, that nothing is more tasteless, and sometimes disgusting, than a joke that has become stale by frequent repetition. For the same reason, even a pun or happy allusion will appear excellent when thrown out extempore in conversation, which would be deemed execrable in print. In like manner, a witty repartee is infinitely more pleasing than a witty attack: for though, in both cases, the thing may be equally new to the reader or hearer, the effect on him is greatly injured when there is access to suppose that it may be the slow production of study and premeditation.

The most comprehensive and lively account of these entertaining qualities which we have yet met with is in Dr. Barrow's Sermons, vol. ii. serm. 14,

beginning:—'It may be demanded what the thing we speak of is? or what this facetiousness (or wit as he calls it before) doth import? To which question I might reply, as Democritus did to him that asked the definition of a man. Tis that which we all see and know.' Any one better apprehends what it is by acquaintance, than I can inform him by description. It is, indeed, a thing so versatile and multiform, appearing in so many shapes, so many postures, so many garbs, so variously apprehended by several eyes and judgments, that it seemeth no less hard to settle a clear and certain notion thereof, than to make a portrait of Proteus, or to define the figure of the fleeting air. We recommend the whole passage to the reader.

Satirical wit is thus well described:—

'True wit is like the polished stone

Dug from Golconda's mine,

Which boasts two different powers in one;

To cut as well as shine.'

WIT (John de), was the son of Jacob de Wit, burgomaster of Dort, and was born in 1625. He became well skilled in civil law, politics, mathematics, and other sciences; and wrote a treatise on the Elements of Curved Lines. Having taken his degree of LL. D., he travelled into foreign countries, where he became esteemed for his genius and prudence. At his return to his native country, in 1650, he became pensionary of Dort, then councillor-pensionary of Holland and West Friesland, intendant and register of the fiefs, and keeper of the great seal. He was thus at the head of affairs in Holland; but his opposition to the re-establishment of the office of stadtholder, which he thought a violation of the freedom and independence of the republic, cost him his life, when the prince of Orange's party prevailed. He and his brother Cornelius were assassinated by the populace at the Hague in 1674, aged forty-seven.

WITCH, *n. s. & v. a.* } Saxon *wicce*. An en-

WITCH'CRAFT, *n. s.* } chantress; a woman given

WITCH'ERY. } to unlawful arts; a hag:

to enchant; transport; bewilder: witchcraft and witchery is the art or practice of witches.

Unto thy bounteous baits, and pleasing charms,  
With which weak men thou witchest, to attend. *Spens.*

Urania name, whose force he knew so well,

He quickly knew what witchcraft gave the blow.

*Sidney.*

He hath a witchcraft

Over the king in 's tongue. *Shakspeare. Henry VIII.*

'Tis now the very witching time of night,

When church-yards yawn. *Id. Hamlet.*

Another kind of petty witchery, if it be not altogether deceit, they call charming of beasts and birds. *Raleigh.*

Wise judges have prescribed that men may not rashly believe the confessions of witches, nor the evidence against them. For the witches themselves are imaginative; and people are credulous, and ready to impute accidents to witchcraft.

*Bacon.*

What subtle witchcraft man constrains

To change his pleasure into pains?

*Denham.*

Great Comus!

Deep skilled in all his mother's witcheries. *Milton.*

When I consider whether there are such persons as witches, my mind is divided: I believe in general that there is such a thing as witchcraft, but can give no credit to any particular instance of it.

*Addison.*

WITCH ELM, WITCH HAZEL, in botany. See ULMUS.

WITCHCRAFT, a supernatural power, which persons were formerly supposed to obtain the pos-



session of by entering into compact with the devil. They gave themselves up to him body and soul; and he engaged that they should want for nothing, and that he would avenge them upon all their enemies. As soon as the bargain was concluded, the devil delivered to the witch an imp, or familiar spirit, to be ready at a call, and do whatever it was directed. By the assistance of this imp with the devil, the witch, who was almost always an old woman, was enabled to transport herself in the air on a broomstick or a spit to distant places to attend the meeting of the witches; at which the devil always presided. They were enabled also to transform themselves into various shapes, particularly to assume the forms of cats and hares, in which they most delighted; to inflict diseases on whomsoever they thought proper; and to punish their enemies in a variety of ways.

The belief that certain persons were endowed with supernatural power, and that they were assisted by invisible spirits, is very ancient. The sages of the Romans seem rather to have been sorcerers than witches; indeed the idea of a witch, as above described, could not have been prevalent till after the propagation of Christianity, as the heathens had no knowledge of the spirit stiled by Christians the devil. Witchcraft was universally believed in Europe till the sixteenth century, and even maintained its ground with tolerable firmness till the middle of the seventeenth. Vast numbers of reputed witches were convicted and condemned to be burnt every year. The methods of discovering them were various. One was, to weigh the supposed criminal against the church bible, which, if she was guilty, would preponderate: another, by making her attempt to say the Lord's Prayer; this no witch was able to repeat entirely, but would omit some part or sentence thereof. It is remarkable that all witches did not hesitate at the same place; some leaving out one part, and some another. Tests, through which the imps sucked, were indubitable marks of a witch; these were always raw, and also insensible; and, if squeezed, sometimes yielded a drop of blood. A witch could not weep more than three tears, and that only out of the left eye! Swimming a witch was another kind of popular ordeal generally practised; for this she was stripped naked, and cross-bound, the right thumb to the left toe, and the left thumb to the right toe. Thus prepared, she was thrown into a pond or river, in which, if guilty, she could not sink; for having, by her compact with the devil, renounced the benefit of the water of baptism, that element, in its turn, renounced her, and refused to receive her into its bosom. Sir Robert Filmer mentions two others by fire: the first, by burning the thatch of the house of the suspected witch; the other, burning any animal supposed to be bewitched by her, as a hog or ox. These, it was held, would force a witch to confess. The trial by the stool was another method used for the discovery of witches. It was thus managed: Having taken the suspected witch, she was placed in the middle of a room upon a stool or table, cross legged, or in some other uneasy posture; to which, if she submitted not, she was then bound with cords; there she was watched, and kept without meat or sleep for the space of twenty-four hours (for, they said, within that time they should see her imp come and suck). A little hole was likewise made in the door for imps to come in at; and lest it should come in some less dis-

cernible shape, they that watched were taught to be ever and anon sweeping the room, and if they saw any spiders or flies, to kill them; if they could not kill them, then they might be sure they were imps. If witches, under examination or torture, would not confess, all their apparel was changed, and every hair of their body shaven off with a sharp razor, lest they should secrete magical charms to prevent their confessing. Witches were most apt to confess on Fridays.

By such trials as these, and by the accusations of children, old women, and fools, were thousands of unhappy women condemned for witchcraft, and burnt at the stake. It would be ridiculous to attempt a serious refutation of the existence of witches; and at present, luckily, the task is unnecessary. In this country, at least, the discouragement long given to all suspicion of witchcraft, and the appeal of the statutes against that crime, have very much weakened, though perhaps they have not entirely eradicated, the persuasion. On the continent, too, it is evidently on the decline; and, notwithstanding the exertions of Dr. De Haen and of the celebrated Lavater, we have little doubt but that in a short time, posterity will wonder at the credulity of their ancestors. Most of the facts which have been brought forward by the advocates for witchcraft bear in their front evident marks of trick and imposture. The crime of witchcraft, which was punished capitally by the law of Moses, was justly punished under the Jewish theocracy, as an act of rebellion against the divine majesty; by attempting to deceive the people, by leading them to trust in demons, and other imaginary beings.

WITE, *v. a.* Sax. *piran*. To blame; reproach.

Scoffing at him that did her justly *wite*,

She turned her boat about.

*Spenser.*

WITENA-GEMOT, or WITENA-MOT, among the Anglo-Saxons, was a term which literally signified the assembly of the wise men; and was applied to the great council of the nation of latter days called the parliament.

WITH, *prep.* Sax. *wið*. By; for; on the side of; by means of; near; amongst; noting the cause; means; instrument; opposition or contest; connexion; company; appendage; confidence. Johnson says 'With and by it is not always easy to distinguish, nor perhaps in distinction always observed. *With* seems rather to denote an instrument, and *by* a cause: thus, 'he killed his enemy *with* a sword, but he died *by* an arrow.' The arrow is considered rather as a cause, as there is no mention of an agent. If the agent be more remote, *by* is used; as, 'the vermin which he could not kill *with* his gun, he killed *by* poison:' if these two prepositions be transposed, the sentence, though equally intelligible, will be less agreeable to the common modes of speech.'

Fear not, for I am *with* thee.

*Genesis.*

They adhered to John, their deprived bishop; and could not be charmed *with* the saintship of any second bishop during his life.

*Lesley.*

*With* that she told me, that, though she spake of her father Cremes, she would hide no truth from me.

*Sidney.*

Can blazing carbuncles *with* her compare?

*Sandys.*

Truth, tired *with* iteration,

As true as steel, as plantage to the moon.

*Shakspeare.*

I do contest

As holily and as nobly *with* thy love,

As ever 'gainst thy valour.

*Id. Coriolanus.*



I will buy *with* you, sell *with* you, talk *with* you, walk *with* you, and so following; but I will not eat *with* you, drink *with* you, nor pray *with* you. *Shakespeare.*

*With* thy powerful blast,

Heat apace, and cool as fast. *Carew.*

God gave man a soul that should live for ever, although the body be destroyed; and those who were good should be *with* him. *Stillington.*

He shall lie *with* any fryar in Spain. *Dryden.*

Pity your own, or pity our estate,

Nor twist our fortunes *with* your sinking fate. *Id.*

Men might know the persons who had a right to regal power, and *with* it to their obedience. *Locke.*

Hast so much wit, and mirth, and spleen about thee, There is no living *with* thee, nor without thee. *Tatler.*

Such arguments had invincible force *with* those

Pagan philosophers who became Christians. *Addison.*

Though Jove himself no less content would be,

To part his throne, and share his heaven *with* thee. *Pope.*

**WITHAL',** *adv.* With and all. Along with the rest; likewise; at the same time.

Yet it must be *withal* considered that the greatest part of the world are they which be farthest from perfection. *Hooker.*

The one contains my picture, prince;

If you chuse that, then I am yours *withal*. *Shakespeare.*

God, when he gave me strength, to shew *withal*

How slight the gift was, hung it in my hair. *Milton.*

We owe to christianity the discovery of the most perfect rule of life that ever the world was acquainted *withal*. *Tillotson.*

Perish his sire, and perish I *withal*,

And let the house's heir and the hoped kingdom fall. *Dryden.*

**WITHDRAW,** *v. a. & v. n.* With and draw.

Sax. *wiðr*, or *wiðer*. To take back; bereave; retire; retreat.

Impossible it is that God should *withdraw* his presence from any thing, because the very substance of God is infinite. *Hooker.*

She from her husband soft *withdrew*. *Milton.*

Duumvir has passed the noon of life; but cannot *withdraw* from entertainments which are pardonable only before that stage of our being. *Tatler.*

**WITHE,** *n. s.* Sax. *wiðe*. A willow twig.

An Irish rebel put up a petition that he might be hanged in a *with*, and not a halter, because it had been so used with former rebels. *Bacon.*

These cords and *wythes* will hold men's consciences, when force attends and twists them. *King Charles.*

Birch is of use for ox-yokes, hoops, screws, *wythes* for faggots. *Mortimer's Husbandry.*

**WITHER,** *v. n. & v. a.* Sax. *geþriepow*, dry, faded. To fade; grow sapless; dry up: to make to fade or dry away.

It shall *wither* in all the leaves of her spring. *Ezekiel* xvii. 9.

The sun is no sooner risen with a burning heat, but it *withereth* the grass, and the flower thereof falleth. *James* i. 11.

That which is of God we defend, to the uttermost of that ability which he hath given: that which is otherwise, let it *wither* even in the root from whence it hath sprung. *Hooker.*

Look how I am bewitched; behold, mine arm is like a blasted sapling, *withered* up. *Shakespeare.*

Thy youth, thy strength, thy beauty, which will change

To *withered*, weak, and grey. *Milton.*

Vain men, how vanishing a bliss we crave, Now warm in love, now *withering* in the grave! *Dryden.*

The soul may sooner leave off to subsist than to love; and, like the vine, it *withers* and dies, if it has nothing to embrace. *South's Sermons.*

**WITHERING** (William), M. D., a distinguished physician and writer on botany, was born in 1741, and studied at Edinburgh, where he took his doctor's degree in 1766. He then settled at Stafford, and afterwards at Birmingham, where he was speedily raised to eminence. The chief objects of his attention, independent of his duties as a medical practitioner, were chemistry and botany. Being subject to pulmonic disease, he thought it desirable, in 1793 and 1794, to pass the winter at Lisbon: and after his return home did not again resume his practice to any extent. He died at the Larches, near Birmingham, in November, 1799. His principal publications are, *A Systematic Arrangement of British Plants*, 2 vols. 8vo., 1776, extended in the edition of 1787 to three volumes, and in that of 1796 to four; *An Account of the Scarlet Fever and Sore Throat, or Scarlatina Anginosa*, 1779, 8vo.; *An Account of the Foxglove*, and some of its Medical Uses, with Practical Remarks on the Dropsy, and other Diseases, 1785, 8vo.; *A Chemical Analysis of the Waters at Caldas da Rainha*, Lisbon, 1795, 4to.; beside a translation of Bergman's *Sciagraphia Regni Mineralis*, and papers in the *Philosophical Transactions* relative to mineralogy.

**WITHERS,** *n. s.* From *withe*, a twig, came *wither*, a horse collar; and thus *withers* is the joining of the shoulder-bones at the bottom of the neck and mane, towards the upper part of the horse's shoulder.

Let the galled beast wince;  
We are unwring in the *withers*. *Shakespeare.*

Rather than let your master take long journies, contrive that the saddle may pinch the beast in his *withers*. *Swift.*

**WITHHOLD',** *v. a.* With and hold. Withheld, or withholden, pret. and part. Spenser has, for the sake of rhyme, written *withhault*. To restrain; keep back.

Soon as Titan 'gan his head exault,  
And soon again as he his light *withhault*,  
Their wicked engines they against it bent. *Spenser.*

What difficulties there are which as yet *withhold* our assent, till we be further and better satisfied, I hope no indifferent amongst them will scorn or refuse to hear. *Hooker.*

The prince  
Would fain have come with me to meet your grace;  
And by his mother was perforce *withheld*. *Shakespeare.*

Be careful to *withhold*  
Your talons from the wretched and the bold. *Dryden.*

Volition is an act of the mind, knowingly exerting that dominion it takes itself to have over any part of man, by employing it in, or *withholding* it from, any particular action. *Locke.*

The word keep back, sheweth that it was a thing formerly due unto God; for we cannot say that any thing is kept back, or *withholden*, that was not due before. *Spelman.*

**WITHIN',** *prep. & adv.* } Saxon *wiðinnan*.  
**WITHIN'SIDE,** *adv.* } With and in. In the inner part or compass of; inwardly: in the interior parts.

Who then shall blame  
His pestered senses to recoil and start,  
When all that is *within* him does condemn  
Itself for being there? *Shakespeare.*

*Within* these five hours Hastings lived  
Untainted, unexamined, free at liberty. *Id.*

Next day we saw, *within* a kenning before us, thick clouds, which put us in hope of land. *Bacon.*

Yet sure, though the skin  
He closed without, the wound festers *within*. *Curew.*  
When on the brink the foaming boar I met,  
The desperate savage rushed *within* my force,  
And bore me headlong with him down the rock. *Orcay.*

Secure of outward force, *within* himself  
The danger lies, yet lies *within* his power;  
Against his will he can receive no harm. *Milton.*  
Till this be cured by religion, it is as impossible for  
a man to be happy, that is, pleased and contented  
*within* himself, as it is for a sick man to be at ease. *Tillotson.*

These as thy guards from outward harms are sent;  
Ills from *within* thy reason must prevent. *Dryden.*  
Were every action concluded *within* itself, and drew  
no consequences after it, we should undoubtedly never  
err in our choice of good. *Locke.*

This, with the green hills and naked rocks *within*  
the neighbourhood, makes the most agreeable confu-  
sion. *Addison.*  
The invention of arts necessary or useful to human  
life, hath been *within* the knowledge of men. *Burnet.*  
Bounding desires *within* the line which birth and  
fortune have marked out, is an indispensable duty. *Atterbury.*

The forceps for extracting the stone is represented a  
little open, that the teeth may be better seen *withinside*.  
*Sharp.*  
Be informed how much your husband's revenue  
amounts to, and be so good a computer as to keep  
*within* it. *Swift.*

WITHOUT, *prep. & conj.* Sax. *piſutan*. With  
and out. Not with; denoting exclusion and abuse:  
unless; if not.

You will never live to my age, *without* you keep  
yourselves in breath with exercise, and in heart with  
joyfulness. *Sidney.*  
The virtuous bezoar is taken from the beast that  
feedeth upon the mountains; and that *without* virtue,  
from those that feed in the vallies. *Bacon.*

Forming trees and shrubs into sundry shapes, done  
by moulding them *within*, and cutting them *without*.  
*Id.*  
The reception of light into the body of the building  
was very prompt from *without* and from *within*. *Wotton.*

Infallibility and inerrableness are assumed and in-  
closed by the Romish church, *without* any inerrable  
ground to hold it on. *Hammond.*  
These were from *without* the growing miseries.  
*Milton.*

Their doors are barred against a bitter flout;  
Snarl, if you please, but you shall snarl *without*.  
*Dryden.*

Happiness under this view every one constantly pur-  
sues. Other things, acknowledged to be, good, he can  
look upon *without* desire, pass by, and be content *with-  
out*. *Locke.*

Having gone as far as they could *without*, they began  
to observe them *within*. *Grew.*  
When the weather hinders me from taking my diver-  
sions *without* doors, I frequently make a little party  
with select friends. *Addison.*

WITHSTAND, *v. a.* } With and stand. To  
WITHSTAND'ER, *n. s.* } gainstand; gainsay; op-  
pose; resist: the noun substantive corresponding.

The violence of sorrow is not at the first to be striven  
withal; being, like a mighty beast, sooner tamed with  
following, than overthrown by *withstanding*. *Sidney.*

The wonderful zeal and fervour wherewith ye have  
*withstood* the received orders of this church, was the  
first thing which caused me to enter into consideration,  
whether every christian man, fearing God, stand bound  
to join with you. *Hooker.*

War may be defined the exercise of violence under

sovereign command against *withstanders*; force, autho-  
rity, and resistance, being the essential parts thereof.  
*Ruleigh.*

They soon set sail; nor now the fates *withstand*;  
Their forces trusted with a foreign hand. *Dryden.*  
When Elymas *withstood* Paul and Barnabas, and  
when Paul says of Alexander, he hath greatly *with-  
stood* our words, do we think the *withstanding* there was  
without speaking? *Atterbury.*

WITNESS. See SALIX.

WITNESS, *n. s., v. a., v. n., & interj.* Saxon  
*piſnerre*. Testimony; attestation; one who gives  
testimony: 'with a witness' is, well testified; effec-  
tually: to witness, to attest, or bear testimony: an  
exclamation calling for testimony or attestation.

God is *witness* betwixt me and thee. *Genesis.*  
If I bear *witness* of myself, my *witness* is not true.  
*John.*

The sea strave with the winds which should be  
louder, and the shrouds of the ship, with a ghastly  
noise, to them that were in it *witnessed* that their ruin  
was the wager of the others contention. *Sidney.*

The devil can cite scripture for his purpose:  
An evil soul producing holy *witness*  
Is like a villain with a smiling cheek,  
A goodly apple rotten at the heart. *Shakespeare.*

There ran a rumour  
Of many worthy fellows that were out,  
Which was to my belief *witnessed* the rather,  
For that I saw the tyrant's power a-foot. *Id.*

The king's attorney  
Urged on examinations, proofs, confessions  
Of diverse *witnesses*. *Id.*

A fat benefice became a crime, and *witness* too  
against its incumbent. *Decay of Piety.*

Nor was long his *witness* unconfirmed. *Milton.*  
For want of words or lack of breath,  
*Witness*, when I was worried with thy peals. *Id.*

Though by the father he were hired to this,  
He ne'er could *witness* any touch or kiss. *Donne.*

Nor need I speak my deeds, for these you see;  
The sun and day are *witnesses* for me. *Dryden.*

*Witness*, ye heavens, I live not by my fault,  
I strove to have deserved the death I sought. *Id.*  
Our senses bear *witness* to the truth of each other's  
report, concerning the existence of sensible things. *Locke.*

The Americans do acknowledge and speak of the de-  
luge in their continent, as Acosta *witnesseth*, and Laet,  
in the histories of them. *Burnet.*

A WITNESS, in law, is a person who gives evi-  
dence in any cause, and is sworn to speak the truth,  
the whole truth, and nothing but the truth.

WITNESSES, TRIAL BY, a species of trial without  
the intervention of a jury. This is the only meth-  
od of trial known to the civil law in which the  
judge is left to form in his own breast his sentence  
upon the credit of the witnesses examined; but it  
is very rarely used in the English law, which pre-  
fers the trial by jury before it in almost every in-  
stance.

WITNEY, a market town and parish in Bamp-  
ton hundred, Oxon, situate on the river Windrush,  
eleven miles and a half W. N. W. of Oxford, seven  
and a quarter from Burford, and sixty-nine W. N. W.  
of London. The town consists of two streets: at  
the upper end of the principal, one stands the  
church, a handsome and spacious structure, built  
in a rich style of Gothic architecture, with a fine  
spire. Witney has been noted for its manufacture  
of blankets, which employs many hands. Here is  
a market on Thursday.

WITSJUS (Herman), was born at Enckhuysen  
in 1626. He was professor of divinity successively



**W. Franeker, Utrecht and Leyden.** His capital works are, 1. Hierosolymitana; 2. Ægyptiaca et Decaphyllon, cum diatriba de Legione Fulminatrice Christianorum; 3. Economy of the Covenants between God and Men. He died in 1708.

**WITT** (Emmanuel de), an eminent painter, born at Alcaer in 1607. He excelled in buildings. He died in 1692.

**WITTENBERG**, a city of Prussian Saxony, in the government of Merseberg, on the Elbe, is situated on a level sandy spot, and is of an oblong form, consisting of one street, with suburbs widely spread, defended by a dyke. Its works, formerly considerable, were allowed to fall gradually to decay, until reinstated by the French in 1813. It has some linen manufactories, and is a place of some antiquity. Luther having been appointed professor of philosophy in 1508, and having here, from his academical chair, first exposed the corruptions of the Catholic church, he and his associate, Melancthon, are buried in the university church. So lately as October 1821 a monumental colossal statue of Luther was erected in Wittenberg, with great solemnity. After it ceased to be the residence of a court, it was found inadequate to the support of the university, and the latter was annexed to that of Halle; and its place supplied by a gymnasium or classical school. Since 1815 this town has been ceded to Prussia. Population 5000. Sixty-nine miles N. N. W. of Dresden, and forty N. N. E. of Leipzig.

**WITTINGLY**, *adv.* From witting, knowing. Sax. *piran*. Knowingly; not ignorantly; with knowledge; by design.

Whatever we work as men, the same we do *wittingly* work and freely; neither are we, according to the manner of natural agents, any way so tied, but that it is in our power to leave things we do undone. *Hooker*.

Withhold revenge, 'tis not my fault,  
Nor *wittingly* have I infringed my vow. *Shakspeare*.  
He knowingly and *wittingly* brought evil into the world. *Morre*.

**WITTOL**, *n. s.* Sax. *pitzol*, from *piran*, to know. A man who knows the falsehood of his wife, and seems contented; a tame cuckold.

O Mars, for what doth serve thy armed ax?

To let that *witold* beast consume in flames

Thy Venus child. *Sidney*.

Amainon sounds well; Lucifer well; yet they are the names of fiends; but cuckold, *witold*, the devil himself hath not such a name. *Shakspeare*.

The jealous *wittolly* knave hath masses of money. *Id.*

**WIVE**, *v. n. & v. a.* } From wife. To marry;

**WIVE'LY**, *adv.* } to take a wife; to match to

wife: wife is belonging to a wife.

Basilus could not abstain from praising Parthenia, the perfect picture of a womanly virtue, and *wively* thfulness. *Sidney*.

A man of his learning should not so lightly have been carried away with old *wives'* tales, from approbance of his own reason. *Spenser*.

Were she as rough  
As are the swelling Adriatick seas,  
I come to *wive* it wealthily in Padua. *Shakspeare*.

She dying gave it me;  
And bid me, when my fate would have me *wived*,  
To give it her. *Id.*

Design or chance makes others *wive*,  
But nature did this match contrive. *Waller*.

**WIVLESCOMB**. See **WIVELSCOMB**.

**WIZ'ARD**, *n. s.* From wise. A conjurer; enchantant; a he witch.

Patience, good lady; *wizards* know their times.

*Shakspeare*.

The prophecies of *wizards* old  
Increased her terror, and her fall foretold. *Waller*.

The wily *wizard* must be caught,  
For, unconstrained, he nothing tells for nought.

*Dryden*.

**WO**, or

**WOE**, *n. s.*

**WO'BEGONE**, *adj.*

**WO'FUL**,

**WO'FULLY**, *adv.*

**WO'FULNESS**, *n. s.*

Sax. *pa*; Isl., Swed., and Belg., *we*. Grief; sorrow; misery; calamity; often used in denunciation and lamentation, when its sometimes becomes a substantive; at others an adjective: *wobegone* is lost in *woe*: *woful*, sorrowful; *calamitous*: the adverb and noun substantive corresponding.

*Wo* is me for my hurt, my wound is grievous. *Jer.*  
Howl ye, *wo* worth the day. *Ezekiel*.

*Wo* be to the shepherds of Israel that do feed themselves. *Id.*

All is but lip wisdom which wants experience:

I now, *wo* is me! do try what love can do. *Sidney*.

The *woful* Gynecia, to whom rest was no ease, had left her loathed lodging, and gotten herself into the solitary places those desarts were full of. *Id.*

*Woe* are we, Sir! you may not live to wear

All your true followers out. *Shakspeare*.

*Woes*, by wrong imaginations, lose

The knowledge of themselves. *Id.*

Many of our princes, *woe* the while!

Lie drowned and soaked in mercenary blood. *Id.*

He took and laid it by, and wept for *wo*. *Chapman*.

Tancred he saw his life's joy set at nought,

So *wobegone* was he with pains of love. *Fairfax*.

Eve plucked, she eat:

Earth felt the wound; and nature from her seat

Sighing through all her works, gave signs of *woe*

That all was lost. *Milton*.

In a tower, and never to be loosed,

The *woful* captive kinsmen are inclosed. *Dryden*.

*Woe* to the vanquished, *woe*!

He who would pass such a judgment upon his condition as shall be confirmed at that great tribunal, from which there lies no appeal, will find himself *wofully* deceived if he judges of his spiritual estate by any of these measures. *South*.

O'er dreary wastes they weep each other's *wo*. *Pope*

**WOAD**, *n. s.* Sax. *pad*; Dan. and Teut. *wuid*;

Belg. *weed*. A plant.

In times of old, when British nymphs were known

To love no foreign fashions like their own;

When dress was monstrous, and fig-leaves the mode,

And quality put on no paint but *woad*. *Garth*.

**WOAD**, in botany. See **ISATIS**. The preparation of woad for dyeing, as practised in France, is minutely described by Astruc, in his Memoirs for a Natural History of Languedoc. The plant puts forth at first five or six upright leaves, about a foot long, and six inches broad: when these hang downwards, and turn yellow, they are fit for gathering: five crops are gathered in one year. The leaves are carried directly to a mill, much resembling the oil or tan mills, and ground into a smooth paste.

If this process was deferred for some time, they would putrefy, and send forth an insupportable stench. The paste is laid in heaps, pressed close and smooth, and the blackish crust, which forms on the outside, reunited if it happens to crack; if this was neglected, little worms would be produced in the cracks, and the woad would lose a part of its strength. After lying for fifteen days, the heaps are opened, the crust rubbed and mixed with the inside, and the matter formed into oval balls, which are pressed close and solid in wooden moulds.

These are dried upon hurdles: in the sun, they turn black on the outside; in a close place, yellowish, especially if the weather be rainy. The dealers in this commodity prefer the first; though it is said the workmen find no considerable difference betwixt the two. The good balls are distinguished by their being weighty, of an agreeable smell, and, when rubbed, of a violet color within. For the use of the dyer, these balls require a farther preparation: they are beaten with wooden mallets, on a brick or stone floor, into a gross powder, which is heaped up in the middle of the room to the height of four feet, a space being left for passing round the sides. The powder, moistened with water, ferments, grows hot, and throws out a thick fetid fume. It is shovelled backwards and forwards, and moistened every day for twelve days; after which it is stirred less frequently, without watering, and at length made into a heap for the dyer.

**WOAHOO**, or **OAHOO**, one of the Sandwich Islands; and perhaps the finest island of the whole group. Nothing can exceed the verdure of the hills, the variety of wood and lawn, and rich cultivated valleys, which the whole face of the country displayed. The road is formed by the north and west extremities. It is supposed to contain 60,000 inhabitants. Long. of the anchoring place  $202^{\circ} 9'$  E., lat.  $21^{\circ} 43'$  N.

**WOBURN**, a neat town of Bedfordshire, forty-two miles N. N. W. of London, long.  $0^{\circ} 32'$  W., lat.  $52^{\circ} 2'$  N., standing on the high road to Manchester. It has twice been burnt down, in 1595 and 1724, is now regularly built, and has a market house of the Doric order, with a lofty cupola. The church is a pretty building, its steeple stands detached, near the north aisle, and had on its summit a very curious wooden lantern nearly 300 years old, but this from neglect fell in ruins, and has been removed. This church was rebuilt by the last abbot, and the family of Staunton, who had estates in this parish, and left some benefactions to the poor; one of them was standard bearer to Henry VII.; it is now kept in repair by the duke of Bedford, out of the produce of some charity lands vested in them. The chancel was beautified about 100 years ago, under the direction of Sir William Chambers; the body was also thoroughly repaired by the late duke, and the present has given an altar piece, communion plate, and barrel organ; there are some monuments. The parish contains 1700 inhabitants; about one mile and a half from the town in the parish of Wavendon are pits of Fuller's earth of some antiquity.

Woburn abbey of the Cistercian order was founded from Fountains' abbey in Yorkshire, in 1145, by Hugh de Bolebec, and was dissolved in 1537, when the revenues amounted to £391 per annum; this with a variety of church property in different parts of the kingdom, forming at present a magnificent income, was bestowed on lord Russell, ancestor of the duke of Bedford, whose seat occupies the site of the abbey, about one mile from the town of Woburn. It is a modern quadrangular building, handsome, but heavy; the west front has four Ionic columns, and the east four fluted Doric ones, the interior contains a large gallery of portraits, and a collection of Italian and Dutch paintings; and in the pleasure ground is a sculpture gallery formed by the present duke, which contains a group of the graces by Canova, which cost £3000. The park is twelve miles in circuit, and contains a large herd of deer.

**WODAN**, or **WODEN**. See **ODIN**, **MYTHOLOGY**, and **POLYTHEISM**.

**WODEVILLE** (Anthony), earl of Rivers, brother to the queen of Edward IV., was born in the end of 1442, or beginning of 1443. He was one of the most accomplished men of his age. He was early and constantly employed either in the tumults of those turbulent times, or in discharging the duties of some of the highest offices of the state, with which he was invested. Yet he found leisure to cultivate letters, and to be the author of works which, though of little value now, made some noise in that age. These consisted chiefly of translations from the French; and his lordship, with his printer Caxton, were the first English author and printer who had the pleasure to see their works printed. He was treacherously imprisoned by Richard III. in Pomfret Castle, where, during his confinement, he composed a short poem, which has been preserved. He was beheaded on the 23d of June, 1483, in the forty-first year of his age.

**WOFFINGTON**, a celebrated actress, born at Dublin, in 1718. She first appeared at Covent Garden, in 1733, in the character of Sir Harry Wildair, with great applause. She died in 1760.

**WOIDE** (Charles Godfrey), LL. D., an eminent oriental scholar, born either in Poland or the United Provinces. Having taken up his abode in this country, about 1765, he obtained the appointment of preacher to the German chapel in the Savoy, and also to that adjoining Marlborough house. In 1782 he was elected by the trustees of the British Museum one of the assistant librarians, a situation for which his deep erudition, especially in Egyptian antiquities, eminently qualified him. Four years after he was presented with the honorary degree of LL. D., by the university of Oxford, for superintending the publication of La Croze's Egyptian Lexicon, and Scholtz's Grammar of the language, which issued from the Clarendon press in 1778. He also published a fac-simile of the Alexandrian manuscript of the New Testament, now in the British Museum. His death took place in the spring of 1790.

**WOLCOT** (John), M. D., better known as Peter Pindar, a satirist, was born at Dodbrook in Devonshire, in 1738. He was educated first at Kingsbridge, in his native county, and next at Bodmin in Cornwall, after which he was brought up under his uncle, an apothecary at Fowey. In 1767 he obtained a doctor's degree in Scotland, and the same year went with Sir William Trelawney to Jamaica, but on the death of his patron returned to England and settled as a physician in Cornwall, where he became the instructor of Opie the painter, with whom he visited London in 1780. He now began, under the name of Peter Pindar, some severe attacks on the royal academicians, in a series of odes. After this he took higher aim, and published a satirical poem called *The Lousiad*, in which he ridiculed king George III., with more wit than truth or manners. After this he brought out a number of ludicrous pieces, which went through numerous editions. The author became blind some years before his death, which happened in Somers-town, January 14th, 1819.

**WOLD**, **WELD**, or **DYER'S WEED**. See **RESEDA**.

**WOLF**, *n. s.*

**WOLFDOG**,

**WOLFISH**, *adj.*

**WOLFISH**.

Sax. *palf*; Teut. and Belg. *wolf*. A well known beast of prey; any thing ravenous or destructive: a wolfdog is a dog of



a large breed: wolfish and wolvisb, resembling a wolf.

No, rather I abjure all roofs, and chuse  
To be a comrade with the *wolf* and owl,  
Necessity's sharp pinch. *Shakspeare.*

Thy desires  
Are *wolfish*, bloody, starved, and ravenous. *Id.*  
My people are grown half wild, they would not worry  
one another so in that *wolfish* belluine manner else. *Howel.*

Nothing more common than those *wolfish* back-friends  
in all our pretensions. *L'Estrange.*

There is a base *wolfish* principle within that is grati-  
fied with another's misery. *South.*

The luckless prey how treacherous tumblers gain,  
And dauntless *wolfdogs* shake the lion's mane. *Tickell.*

WOLF, in zoology. See CANIS.

WOLF, or WOLF POISON. See POISON.

WOLF DOG. See CANIS.

WOLF FISH, or SEA WOLF. See ANARCHICAS.

WOLFE (major-general James) was born at  
Westerham in Kent, 1726. His father was lieute-  
nant-general Edward Wolfe. He went into the  
army when very young; and, applying himself with  
assiduity to the study of his profession, soon be-  
came remarkable for his military knowledge. He  
distinguished himself at the battle of Lafelt when  
little more than twenty. After the peace, he con-  
tinued to cultivate the art of war. He introduced  
the greatest regularity, and the exactest discipline  
into his corps, and at the same time preserved the  
affection of the soldiers. In 1758 he was a briga-  
dier-general at the siege of Louisbourg. He  
landed first on the island at the head of his di-  
vision; and in spite of the violence of the surf,  
and the force and well-directed fire of the enemy,  
drove them from their post with great precipitation.  
The surrender of the town, which happened soon  
after, was in a great measure owing to his activity,  
bravery, and skill. The fame which he acquired  
here procured him the command of the army  
destined to attack Quebec. This was the most  
difficult and the most arduous undertaking of the  
war. Quebec was well fortified, and defended by  
an army of 20,000 men, regulars and militia, be-  
sides a considerable number of Indian allies. The  
troops destined for this expedition consisted of ten  
battalions, making up altogether about 7000 men.  
He landed his army on the northern shore of the  
river St. Lawrence in spite of the enemy, and  
forced them to a battle, in which they were com-  
pletely defeated. The consequence of this battle  
was the reduction of Quebec, and the conquest of  
Canada. In the beginning of the battle, general  
Wolfe was wounded in the wrist by a musket ball,  
but he continued to give his orders with his usual  
calmness and perspicuity. Towards the end of the  
battle, he received a new wound in the breast; he  
immediately retired behind the rear-rank, sup-  
ported by a grenadier, and laid himself down on  
the ground. Soon after a shout was heard; and  
one of the officers who stood by him exclaimed,  
'See how they run!' The dying hero asked with  
some emotion, 'Who run?' 'The enemy,' re-  
plied the officer, 'they give way every where.' The  
general then said, 'Pray, do one of you run to  
colonel Burton, and tell him to march Webb's  
regiment with all speed down to Charles River, to  
cut off the retreat of the fugitives from the bridge.  
Now, God be praised, I shall die happy!' He  
then turned on his side, closed his eyes, and ex-  
pired. His body was brought to England, and

buried with military honors in Westminster Abbey,  
where a magnificent monument is erected to his  
memory.

WOLFE (John Christian), a celebrated German  
philosopher, was born at Breslau in 1679. He  
prosecuted his studies successively in the universi-  
ties of Jena, Hamburg, and Leipzig. At the  
age of twenty-six he had acquired so much dis-  
tinction, that he was appointed professor of ma-  
thematics, and soon afterwards of philosophy in  
general, in the university of Hall. After Leibnitz  
had published his *Theodicea*, Wolfe, struck with  
the novelty of the edifice which that philosopher  
had raised, assiduously labored in the investigation  
of new metaphysical truths. He also digested the  
elements of mathematics in a new method, and at-  
tempted an improvement of the art of reasoning, in  
a treatise *On the Powers of the Human Under-  
standing*. Upon the foundation of Leibnitz's doc-  
trine of Monads, he formed a new system of cos-  
mology and pneumatology, digested and demon-  
strated in a mathematical method. This work, en-  
titled *Thoughts on God, the World, and the  
Human Soul*, was published in the year 1719; to  
which were added, in a subsequent edition, *Heads  
of Ethics and Policy*. Wolfe was now rising  
towards the summit of philosophical reputation,  
when the opinion which he entertained on the doc-  
trine of necessity being deemed by his colleagues  
inimical to religion, and an oration which he de-  
livered in praise of the morality of the Chinese  
having given much offence, an accusation of heresy  
was publicly brought against him; and though he  
attempted to justify himself, in a treatise which he  
wrote on the subject of fatality, a royal mandate  
was issued in November 1723, requiring him to  
leave the Prussian dominions. Having been for-  
merly invited by the landgrave of Hesse Cassel to  
fill a professor's chair in the university of Cassel,  
Wolfe now put himself under the patronage of that  
prince, who had the liberality to afford him a se-  
cure asylum, and appointed him professor of ma-  
thematics and philosophy. The question concern-  
ing the grounds of the censure which had been passed  
upon Wolfe, was now every where freely canvassed;  
almost every German university was inflamed with  
disputes on the subject of liberty and necessity;  
and the names of Wolfians and Anti-Wolfians were  
every where heard. After an interval of nine years,  
the king of Prussia reversed his sentence of exile,  
and appointed him vice-chancellor of the university  
of Hall; where his return was welcomed with  
every expression of triumph. From this time he  
was employed in completing his *Institutes of Phi-  
losophy*, which he lived to accomplish in every  
branch except policy. In 1745 he was created a  
baron by the elector of Bavaria, and succeeded Lu-  
dowig in the office of chancellor of the university.  
He continued to enjoy these honors till 1754, when  
he expired.

WOLFENBUTTEL, or BRUNSWICK WOLFEN-  
BUTTEL, an independent duchy of Germany, com-  
posed of several scattered territories in the circles  
of Upper and Lower Saxony and Westphalia. It  
contains 1615 square miles, and 210,000 inhabit-  
ants. The whole is divided, for the purpose of  
local government, into six districts, of which the  
principality of Wolfenbittel retains four. The  
revenue, amounting to £200,000 a year, is at the  
disposal, partly of the duke, partly of the states.  
The personal income of the duke, in consequence

of the successive lapse of the property of noble families, is larger than that of most German princes; he draws £15,000 from the duchy of Oels in Silesia.

**WOLFENBUTTEL**, a city of Germany, and the capital of the principality of the same name, stands on the Oker, thirty-seven miles E. S. E. of Hanover. Its environs are fertile; but they contain some marshes, which render the air somewhat unhealthy. It is fortified; but its works are neglected. It is divided into the citadel or fortified part, and two suburbs. The public buildings are the castle, formerly the residence of the dukes of Branswick, three parish churches, the chancery, and arsenal. The public library is large; but the books are in general old. Wolfenbuttel has a Ducal high school; also other schools, and a Lutheran convent. It is also the seat of a court of justice, and of a consistory. The manufactures, though on a small scale, comprise linen, leather, soap, and silk. Population 6700.

**WOLFSBANE**. See **ACONITUM**.

**WOLFSBANE, WINTER**. See **HELLEBORUS**.

**WOLGA**, a river of Russia, which has the longest course, and, with the exception of the Danube, the largest volume of any river in Europe. It rises among the Valdai mountains, in lat. 57° N., and takes a direction in general eastward, but with many windings, until reaching the city of Kazan. Below Kazan it receives the Kama, which brings to it the tribute of a great extent of country. It now flows southward, and forms the boundary between Europe and Asia during several hundred miles, till reaching Tzarystyn, when, turning to the east, it approaches the Caspian, and, after separating into a great number of branches, discharges itself into that sea near Astracan. Its course is computed at the extraordinary length of 2700 miles. From the vicinity of Tver, northward, a communication is opened to the Msta, a river flowing northward to the Nieva; so that Russia in Europe admits of being traversed by water in all its extent. The principal rivers which join the Wolga are the Tvertza, the Mologa, the Sestra, the Soscha, the Oka, the Sura, the Kasanka, the Kama, the Sok, and the Samara.

**WOLLASTON** (William), descended of an ancient family in Staffordshire, was born in 1659. He was in 1674 admitted a pensioner in Sidney College, Cambridge. In 1682 he became assistant to the head master of Birmingham school. Some time after he got a small lecture about two miles distant, but did the duty the whole Sunday; which, together with the business of a great free school for about four years, began to break his constitution. During this space he likewise underwent a great deal of trouble and uneasiness, to extricate two of his brothers from some inconveniences, to which their own imprudence had subjected them. In 1688 affairs took a new turn. He found himself by a cousin's will entitled to a very ample estate; and came to London that same year, where he settled; choosing a private, retired, and studious life. Not long before his death, he published his treatise entitled *The Religion of Nature Delineated*; a work for which so great a demand was made that more than 10,000 copies were sold in a very few years. He had scarcely completed the publication of it, when he unfortunately broke an arm; and this, adding strength to distempers that had been growing upon him for some time, acce-

lerated his death. He died the 29th of October 1724.

**WOLLSTONECRAFT** (Mary), an extraordinary writer, born at Beverley in Yorkshire in 1768. Her father having ruined his fortune, she opened a school at Islington, in her twenty-fourth year, which was soon after transferred to Newington Green. She had for her partner a young lady to whom she was greatly attached, and whom, in 1785, she accompanied to Lisbon. On her return to England she became governess to lord Kingsborough's daughters. In 1787 she again settled in London, and lived by her pen. She published *Original Stories from Real Life*, for the use of Children, a translation from the French and German. She next had some concern in the *Analytical Review*. In 1790 she published an *Answer to Burke's Reflections on the French Revolution*; and, in 1791, her *Vindication of the Rights of Women*. In 1792 she went to Paris, where she formed an unfortunate connexion with an American gentleman, by whom she had a daughter. For him she undertook a voyage to Norway to regulate some commercial concerns. This tour occasioned her *Letters from Scandinavia*. On her return to England, she found herself deserted by her paramour, and, in a fit of despair, plunged into the Thames, from Putney Bridge. She was saved and restored to life. In 1796 she was married to Mr. Godwin, the author of *Political Justice*, and other works. She died in child-birth in August 1797. Her posthumous works, consisting of *Letters and Fragments*.

**WOLSEY** (Thomas), Cardinal, is said to have been the son of a butcher at Ipswich. He studied at Magdalen College, Oxford, and in 1500 became rector of Lymington in Somersetshire: he was afterwards made chaplain to king Henry VIII., and obtained several preferments. Having gradually acquired an entire ascendancy over the mind of Henry VIII., he successively obtained several bishoprics, and at length was made archbishop of York, lord high chancellor of England, and prime minister; and was for several years the arbiter of Europe. Pope Leo X. created him cardinal in 1515, and made him legate à latere; and the emperor Charles V., and the French king Francis I., loaded him with favors, to gain him over to their interest: but, after having first sided with the emperor, he deserted him to espouse the interest of France. As his revenues were immense, his pride and ostentation were carried to the greatest height. He had 500 servants; among whom were nine or ten lords, fifteen knights, and forty esquires. His ambition to be pope, his pride, his exactions, and his political delay of Henry's divorce, occasioned his disgrace. See **ENGLAND**. He died in the year 1530.

The magnificence of the cardinal's chapel establishment, as described by Cavendish, his contemporary and domestic, seems far to have surpassed that of the Roman pontiff himself. 'First, he had there a deane, a great divine, and a man of excellent learning; a sub-dean, a repeatour of the quire, a gospeller and epistollor; of singing priests, ten, a master of the children. The seculars of the chapell, being singing men, twelve; singing children, ten, with one servant to waite upon them. In the vestry, a yeoman and two grooms; over and besides other retainers that came thither at principl feasts. And for the fur-



niture of his chapell, it passeth my weak capacity to declare the number of the costly ornaments and rich jewels that were occupied in the same. For I have seen in procession about the hall forty-four rich copes, besides the rich candlesticks, and other necessary ornaments to the furniture of the same.' The earl of Northumberland seems to have been treated with great insolence and indignity by the cardinal, who demanded his choral books for the use of this chapel. Letters concerning this requisition are still preserved, in which the earl says, 'I do perceayff my lorde cardinall's pleasour ys to have such boks as was in the chapell of my lat lorde and ffaithher (wos soll Jhu pardon). To the accompylment of which, at your desyer, I am conformable, notwithstandinge I trust to be able ons to set up a chapell off myne owne. I shall with all sped send up the boks unto my lord's grace, as to say iiij Antifonnars (Antiphoners), such as I think wher not seen a gret wyll—v Gralls (Graduals)—an Ordeorly (Ordinal)—a Manual—vij Prossessioners (Processionals).' Northumberland Household Book.

WOLVERENE, in zoology. See URUS.

WOLVERHAMPTON, a borough town in Seisdon hundred, Staffordshire, situate on a rising ground, fourteen miles north-west of Birmingham, and 123 north-west of London. Of its trade and manufactures, hardware is the chief article, but it is also noted for its ingenious locksmiths. Most of the farmers in the neighbourhood have their forges, where they work when not employed in the field, and take their work to market as regularly as other farmers their corn; many of the women are assistants in these manufactures, and work at the file. It has two churches; St. Peter's is collegiate, and has a lofty square tower, embellished with battlements; it has eight bells, a set of chimes, and an organ, and contains several handsome monuments. This church, as well as a convent, was erected about the end of the tenth century, by a Saxon lady, called Wulfruna, whence the corruption of the word Wolver. An act of parliament was obtained, in 1775, for the erection of a new church or chapel of ease here, which was finished in a plain neat manner, in 1758; but, for want of funds, the steeple was not erected till 1776. It is dedicated to St. John. Besides these churches there are three chapels, and numerous dissenting meeting-houses. This town has a canal branching from the Dudley and Birmingham canal; communicating also with the Stafford, Worcester, and Grand-Trunk, and another branch to the Wyrley and Essington canal, at Walsall. Market on Wednesday and Saturday. The mother church is a curacy under the dean of Windsor, and St. John's is a chapel of ease. It sends two members to parliament.

WOM'AN, *n.s. & v. a.* } Sax. *piſman*, *pimman*  
WOM'ANED, *adj.* } (Skinner), meaning wif  
WOM'ANHATER, *n. s.* } or womb-man. The hu-  
WOM'ANHEAD, } man female; a female  
WOM'ANHOOD, } servant: to woman is,  
WOM'ANISE, *v. a.* } to make too pliant; to  
WOM'ANISH, *adj.* } emasculate: womaned  
WOM'ANKIND, *n. s.* } is accompanied by, or  
WOM'ANLY, *adj. & adv.* } united with, a woman:  
womanhead or womanhood, the character or qualities of a woman: to womanise is to make effeminate: soften: the other derivatives correspond.

And *Womanish* took men servants and women servants.

*Genesis.*

This effeminate love of a woman doth womanize a man. Sidney.

So easy 'tis t' appease the stormy wind Of malice, in the calm of pleasant womankind. Spens.

There dwells sweet love and constant chastity, Unspotted faith, and comely womanhood. I. t.

A voice not soft, weak, piping, and womanish, but audible, strong, and manlike. Ascham.

She brings your froward wives, As prisoners, to her womanly persuasion. Shakspeare.

That man who hath a tongue is no mau, If with his tongue he cannot win a woman. Id.

I could not personally deliver to her What you commanded me; but by her woman I sent your message. Id.

I do attend here on the general, And think it no addition, nor my wish, To have him see me womaned. Id.

During his banishment, he was so softened and dejected, as he wrote nothing but a few womanish epistles. Bacon.

All will spy in thy face A blushing womanly discovering grace. Donne.

O woman, lovely woman, nature formed thee To temper man: we had been brutes without thee. Otway.

Because thou doat'st on womankind, admiring Their shape, their colour, and attractive grace, None are, thou think'st, but taken with such toys. Milton.

In a sad look of womanish complaint. I melt to womanish tears, and, if I stay, I find my love my courage will betray. Dryden.

Rage choaks my words; 'tis womanly to weep. Id.

Women are made as they themselves would chuse, Too proud to ask, too humble to refuse. Garth.

Vivacity is the gift of women, gravity that of men. Addison.

Juba might make the proudest of our sex, Any of womankind but Marcia, happy. Id.

Young persons, under a womanly age, are often troubled with some of the same symptoms. Arbuthnot.

How could it come into your mind, To pitch on me, of all mankind, Against the sex to write a satire, And brand me for a womanhater? Swift.

WOMAN. See HOMO.

For the present improved treatment of the fair sex, and in consequence thereof of society in general, modern Europeans are indebted to our Gothic ancestors. Women, among the ancient Greeks and Romans, seem to have been considered merely as objects of sensuality, or of domestic convenience: they were devoted to a state of seclusion and obscurity, had few attentions paid them, and were permitted to take as little share in the conversation as in the general commerce of life. But the northern nations, who paid a kind of devotion to the softer sex, even in their native forests, had no sooner settled themselves in the provinces of the Roman empire, than the female character began to assume new consequence. Those fierce barbarians, who seemed to thirst only for blood, always forbore to offer any violence to the women. They brought along with them the respectful gallantry of the north, which had power even to restrain their savage ferocity; and they introduced into the west of Europe a generosity of sentiment, and a complaisance towards the ladies, to which the most polished nations of antiquity were strangers. These sentiments of generous gallantry were fostered by the institution of chivalry, which lifted woman yet higher in the scale of life. Instead of being nobody in society, she became its primum mobile. Every

knight devoting himself to danger, declared himself the humble servant of some lady, and that lady was often the object of his love. Her honor was supposed to be intimately connected with his, and her smile was the reward of his valor: for her he attacked, for her he defended, and for her he shed his blood. Courage, animated by so powerful a motive, lost sight of every thing but enterprise: incredible toils were cheerfully endured, incredible actions were performed, and adventures seemingly fabulous were realised. The effect was reciprocal. Women, proud of their influence, became worthy of the heroism which they had inspired: they were not to be approached but by the high minded and the brave; and men then could only be admitted to the bosom of the chaste fair, after proving their fidelity and affection by years of perseverance and of peril. Again, as to the change which took place in the operations of war, it may be observed that the perfect hero of antiquity was superior to fear, but he made use of every artifice to annoy his enemy: impelled by animosity and hostile passion, like the savage in the American woods, he was only anxious of attaining his end, without regarding whether fraud or force were the means. But the true knight or modern hero of the middle ages, who seems in all his rencounters to have had his eye on the judicial combat or judgment of God, had an equal contempt for stratagem and danger. He disdained to take advantage of his enemy: he desired only to see him, and to combat him upon equal terms, trusting that heaven would declare in behalf of the just; and as he professed only to vindicate the cause of religion, of injured beauty, or oppressed innocence, he was further confirmed in this enthusiastic opinion by his own heated imagination. Strongly persuaded that the decision must be in his favor, he fought as if under the influence of divine inspiration rather than of military ardor. Thus the system of chivalry, by a singular combination of manners, blended the heroic and sanctified characters, united devotion and valor, zeal and gallantry, and reconciled the love of God and of the ladies

WOMB, *n. s. & v. a.* } Sax. *pamb*; Goth. *wamba*;  
WOMBY, *adj.* } Isl. *wemb*. The place of  
the fetus in the mother; place whence any thing is  
produced; cavity: to enclose: 'womby, capacious.  
Obsolete.

When yet he was but tender bodied, and the only  
son of my womb. *Shakspeare.*

Not for all the sun sees, or  
The close earth womb, will I break my oath  
To this my fair beloved. *Id.*

He'll call you to so hot an answer for it,  
That caves and wombly vaultages of France  
Shall chide your trespass, and return your mock. *Id.*

The earth was formed, but in the womb as yet  
Of waters, embryo immature involved,  
Appeared not. *Milton.*

New-born children bring not many ideas into the  
world, bating some faint ideas of hunger and thirst  
which they may have felt in the womb. *Locke.*

An amphitheatre unpeopled Rome,  
And held, uncrowded, nations in its womb. *Addison.*

WONDER, *v. n. & n. s.* } Sax. *punepian*; Teut.  
WONDERFUL, *adj.* } *wunder*; Belg. *wonder*.  
WONDERFULLY, *adv.* } To be struck with ad-  
WONDERMENT, *n. s.* } miration; be pleased or  
WONDERSTRUCK, *adj.* } surprised to astonish-  
WON'DROUS, *adj. & adv.* } ment: with *at*. and  
WON'DROUSLY, *adv.* } rarely with *after*: ad-

miration; astonishment; cause of wonder: wonder-  
ful and wondrous mean admirable: strange;  
marvellous: and the other derivatives correspond.

I uttered that which I understood not, things too  
wonderful for me, which I knew not. *Job xlii. 3.*

The house which I am about to build shall be won-  
derful great. *2 Chron. ii. 9.*

The want of these magazines of victuals I have com-  
plained of in England, and wondered at in other coun-  
tries. *Spenser.*

When my pen would write her titles true,  
It ravished is with fancy's wonderment. *Id.*

My lord led wondrously to discontent. *Shakspeare.*

From that part where Moses remembereth the giants,  
begotten by the sons of good men upon the daughters  
of the wicked, did they steal those wondrous great acts  
of their ancient kings and powerful giants. *Raleigh.*

The pope, knowing himself to be unprofitable to the  
christian world, was wonderfully glad to hear that there  
were such echoes of him sounding in remote parts.

*Bacon.*

Wonder causeth astonishment, or an immovable pos-  
ture of the body; for in wonder the spirits fly not as in  
fear, but only settle. *Id.*

Then medicines wondrously composed the skilful  
leech applied. *Chapman.*

The Cornish wonder-gatherer describeth the same.  
*Carew.*

There is a place deep, wondrous deep, below,  
Which genuine night and horrors do o'erflow. *Cowley.*

The credit of whose virtue rest with thee;  
Wondrous indeed, if cause of such effects. *Milton.*

There Babylon, the wonder of all tongues. *Id.*

Strange

Hath been the cause, and wonderful to hear. *Id.*

Drawn for your prince, that sword could wonders do.  
The better cause makes mine the sharper now. *Waller.*

In such charities she passed the day,  
'Twas wondrous how she found an hour to pray. *Dryden.*

King Turnus wondered at the fight renewed. *Id.*

Ascanius, wonderstruck to see  
That image of his filial piety. *Id.*

The neighbours made a wonderment of it, and asked  
him what he meant. *L'Estrange.*

Who can wonder that the sciences have been so over-  
charged with insignificant and doubtful expressions,  
capable to make the most quick-sighted little the more  
knowing? *Locke.*

There is something wonderfully divine in the airs of  
this picture. *Addison.*

Sylphs, yet mindful of their ancient race,  
Are, as when women, wondrous fond of place. *Pope.*

I could not sufficiently wonder at the intrepidity of  
these diminutive mortals, who durst venture to mount  
and walk upon my body. *Swift.*

Researches into the springs of natural bodies, and  
their motions, should awaken us to admire the wondrous  
wisdom of our Creator in all the works of nature.

*Watts.*

WONT, *v. n.* } Pret. & part. wont; Sax.  
WONT'ED, *adj.* } *punian*. Teut. *wonheit*. To  
WONT'EDNESS, *n. s.* } be accustomed; to use; be  
WONT'LESS, *adj.* } used: wantless is unac-  
customed, and the other derivatives correspond.

Passing their time according to their wont, they  
waited for the coming of Phalantus. *Sidney.*

Through power of that, his cunning thieveries  
He wents to work, that none the same espies. *Spenser.*

Whither, love, wilt thou now carry me?  
What wantless fury dost thou now inspire  
Into my feeble breast, when full of thee? *Id.*

Things natural in that regard forget their ordinary  
natural wont, that which is heavy mounting sometime  
upwards of its own accord. *Huotier.*

Jason the Thessalian was wont to say, that some



things must be done unjustly, that many things may be done justly. *Bacon.*

Did I see any thing more of Christ in those that pretend to other modes of government, I might suspect my judgment biased with prejudice or wontedness of my opinion. *King Charles.*

So prayed they, innocent, and to their thoughts Firm peace recovered soon, and wonted calm. *Milton.*

For others that he saw perplexed about the manage of their difficult affairs, he was wont to ask them when they would begin to trust God, or permit him to govern the world? *Fell.*

Who have no house, sit round where once it was,

And with full eyes each wonted room require ;

Haunting the yet warm ashes of the place,

As murdered men walk where they did expire. *Dryd.*

The pond-frog would fain have gotten the other frog over ; but she was wonted to the place, and would not remove. *L' Etrange.*

Another sort of sophism is wont to be called an imperfect enumeration or false induction, when from a few experiments men infer general theorems. *Watts.*

WOO, *v. a. & v. n.* } Sax. *apogod*, courted. To Woo'ER, *n. s.* } court; sue to for love; importune; make love : he woo woos.

We cannot fight for love, as men may do ; We should be woo'd, and were not made to woo. *Shakespeare.*

In those holes

Where eyes did once inhabit, there were crept, As 'twere in scorn of eyes, reflecting gems ; That woo'd to the slimy bottom of the deep. *Id.*

Usurping woers felt his thundering sword, And willing nations knew their native lord. *Creech.*

How is the loadstone, nature's subtle pride, By the rude iron woo'd, and made a bride ? *Cowley.*

My proud rival woos Another partner to his throne and bed. *Philips.*

Oh stretch thy reign, fair peace ! from shore to shore,

Till conquest cease and slavery be no more ; Till the freed Indians in their native groves Reap their own fruits, and woo their sable loves. *Pope.*

WOOD, *adj.* Sax. *pod* ; Goth. *vod*. Mad ; furious ; raging. Obsolete.

Winds do rage as winds were wood, And cause spring tides to raise great flood. *Tusser.*

Calm the tempest of his passion wood ; The banks are overflown when stopped is the flood. *Spenser.*

WOOD, *n. s.* } Sax. *puðe* ; Belgic *woud* ;  
WOOD'BINE, } Goth. and Swed. *wid*. A large  
WOOD'COCK, } or thick collection of trees ;  
WOOD'DRINK, } the substance of trees ; timber :  
WOOD'ED, *adj.* } woodbine is a name of the honeysuckle : woodcock, a bird  
WOOD'EN, } used as an emblem of a fool :  
WOOD'HOLE, } wooddrink, a decoction of a  
WOOD'LAND, } medicinal wood : wooded, supplied  
WOOD'LOUSE, } with or abounding in  
WOOD'MAN, } wood : wooden, made of wood ;  
WOOD'NOTE, } ligneous ; also clumsy ; awkward ;  
WOOD'NYMPH, } stupid : woodhole, a  
WOOD'PECKER, } store-hole for wood : woodsare  
WOOD'SARE, } is explained in the extract, and  
WOOD'Y, *adj.* } the other compounds seem to require no explanation.

With the woody nymphs when she did play. *Spenser.*

The wood-born people fall before her flat, And worship her as goddess of the wood. *Id.*

The duke is a better woodman than thou takest him for. *Shakespeare.*

The woods are ruthless, dreadful, deaf, and dull : There speak and strike. *Id.*

I'll win this lady Margaret : for whom ?

Why, for my king ; tush, that's a wooden thing. *Id.*

Beatrice, e'en now

Couched in the woodbine coverture. *Id.*

He hath bid me to a calve's head and a capon ; shall I not find a woodcock too ? *Id.*

The froth called woodsare, being like a kind of spittle, is found upon herbs, as lavender and sage. *Bacon.*

Wooded so, It makes a spring of all kinds that grow. *Chapman.*

Then to the well-trod stage anon,

If Jonson's learned sock be on ;

Or sweetest Shakspeare, Fancy's child,

Warble his native woodnotes wild. *Milton.*

By dimpled brook and fountain brim,

The woodnymphs decked with daisies trim,

Their merry wakes and pastimes keep. *Id.*

Four times ten days I've passed,

Wandering this woody maze, and human food

Nor tasted, nor had appetite. *Id.*

They used to vault or leap up ; and therefore they had wooden horses in their houses and abroad. *Browne.*

Having filled it above five inches with thoroughly kindled wood coals, we let it down into the glass. *Boyle.*

Hecate, when she gave to rule the woods, Then led me trembling through those dire abodes. *Dryden.*

Of long growth there stood A laurel's trunk, a venerable wood. *Id.*

Pressed with the burden, Cæneus pants for breath ;

And on his shoulders bears the wooden death. *Id.*

This household beast, that used the woodland grounds,

Was viewed at first by the young hero's hounds, As down the stream he swam. *Id.*

Herbs are those plants whose stalks are soft, and have nothing woody in them, as grass and hemlock. *Locke.*

What should I do, or whither turn ? amazed, Confounded to the dark recess I fly

Of woodhole. *Philips.*

Herrings must be smoaked with wood. *Child.*

The millepes or woodlouse is a small insect ; it has only fourteen pair of short legs ; it is a very swift runner, but it can occasionally roll itself up into the form of a ball. *Hill.*

Diana's woody realms he next invades, And crosses through the consecrated shades. *Addis.*

When a bold man is out of countenance, he makes a very wooden figure on it. *Collier.*

Soon as in doubtful day the woodcock flies, Her cleanly pail the pretty housewife bears. *Gay.*

The drinking elder-wine or wooddrinks are very useful. *Flayer.*

The lord Strutts have been possessed of a very great landed estate, well conditioned, wooded, and watered. *Arbuthnot.*

The structure of the tongue of the woodpecker is very singular, whether we look at its great length, its bones and muscles, its incompassing parts, &c. *Derham.*

Here hills and vales, the woodland and the plain, Here earth and water seem to strive again. *Pope.*

There is an insect they call a woodlouse, That folds up itself in itself, for a house,

As round as a ball, without head, without tail, Inclosed cap-a-pe in a strong coat of mail. *Swift.*

Wood (*sylva*), in geography, a multitude of trees extended over a vast tract of land, and propagated without culture. The generality of woods only consist of trees of one kind.—The ancient Saxons had such a veneration for woods that they made them sanctuaries.—It is ordained, that none shall destroy any wood, by turning it into tillage or pasture, &c., where there are two acres or more in quantity, on pain of forfeiting 40s. an acre, by 35

Henry VIII. c. 17. All woods that are felled at fourteen years growth are to be preserved from destruction for eight years; and no cattle put into the ground for five years after the felling thereof, &c., 13 Eliz. c. 25. The burning of woods or underwood is declared to be felony; also those persons that maliciously cut or spoil timber-trees, any fruit-trees, &c., shall be sent to the house of correction, there to be kept three months, and whipt once a month.

**WOOD, METHOD OF STAINING OR DYEING. See TURNING.**

**WOOD (Anthony)**, an eminent biographer and antiquarian, was the son of Thomas Wood, B. A. and LL. Civ., and born at Oxford in 1632. He studied at Merton College, and in 1655 took the degree of M. A. He wrote, 1. *The History and Antiquities of the University of Oxford*; which was afterwards translated into Latin by Mr. Wase and Mr. Peers, under the title of *Historia et Antiquitates Oxoniensis*, 2 vols. folio. 2. *Athenæ Oxoniensis*; or an exact Account of all the Writers and Bishops who have had their Education in the University of Oxford, from the year 1500 to 1600, 2 vols. folio; which was greatly enlarged in a second edition published in 1721 by bishop Tanner. Upon the first publication of this work the author was attacked by the university, in defence of Edward earl of Clarendon, lord high chancellor of England, and chancellor of the university, and was likewise animadverted upon by bishop Burnet; upon which he published a *Vindication of the Historiographer of the University of Oxford*. He died at Oxford of a retention of urine in 1695.

**WOOD ANEMONE. See ANEMONE.**

**WOODBIND. See LONICERA.**

**WOODBIND, SPANISH. See IPOMOEA.**

**WOODBIDGE**, a town of Suffolk, which took its name, it is supposed, from a wooden bridge built over a hollow way, to make a communication between two parks, separated by the road which leads by the market place towards Ipswich. The streets though narrow are paved, and the longest is nearly a mile in extent. The market place is clean and well built. The river Deben, on which this town is situated, discharges itself into the sea, about ten miles below it, and is navigable up to the town. Here are two quays. This place is generally admired by travellers for its healthy and salubrious air. A considerable trade is carried on here in corn, flour, malt, cheese, coals, timber, deals, wine, foreign spirits, porter, grocery, drapery, and ironmongery, goods. The shipping of late years has increased in the exportation of corn. Regular London traders sail to and from port, weekly; the other vessels for the most part are employed in the Newcastle and Sunderland trade. The manufacture of sack-cloth, for which this place was formerly noted, and the refining of salt are now quite relinquished, other places affording them on cheaper terms. The parish church is a very noble structure. The tower is remarkably handsome, composed of flute work in beautiful compartments. It is 108 feet high, and is distinguished at sea as a capital object, and even at a great distance on land. There are also several meeting houses for the Dissenters. The quarter sessions of the peace for this division are held here in a noble old hall, built in the reign of queen Elizabeth. The number of houses is 657, and inhabitants 4132. The market is held on Wednesday;

and there are two fairs yearly, one on April 6th, the other on October 12th. Seventy-seven miles north-east of London, and seven E. N. E. of Ipswich.

**WOODCOCK. See SCOLOPAX.**

**WOODCOTE. See NEOMAGUS.**

**WOODFALL (William)**, a printer and parliamentary reporter, whose father, also a printer, was the proprietor of the *Public Advertiser*. The son was placed in the printing office of Mr. Baldwin, and afterwards assisted his father. He then attempted the stage, but with little success; and prepared for exhibition Savage's tragedy, entitled *Sir Thomas Overbury*, acted at Covent Garden in 1777. In consequence of his being the publisher of the *Letters of Junius*, he was exposed to a prosecution, which induced him to take refuge in Ireland: at length he became proprietor and editor of the *Morning Chronicle*, and distinguished himself by the ability and precision with which he reported the debates. He died August 1st, 1803, at the age of fifty-eight. Besides his labors as a journalist, he produced, in several pamphlets, reports of a debate in the Irish house of commons; and another at the India House.

**WOODFORD**, a parish in Beacontree hundred, Essex, situate on the road to Epping, eight miles and a half north-east of London; containing 395 houses and 2699 inhabitants. In the church-yard is a handsome Corinthian column, brought from Italy, and erected to the memory of Sir Edmund-bury Godfrey.

**WOODFRETTER. See ONISCUS.**

**WOODGOAT. See CAPRA.**

**WOODLARK. See ALAUDA.**

**WOODLOUSE. See ONISCUS.**

**WOODPECKER. See PICUS.**

**WOODPIGEON. See COLUMBA.**

**WOODS, LAKE OF**, a lake of North America, the most northern in the territory of the United States, so called from the large quantities of wood growing on its banks; such as oak, pine, fir, spruce, &c. There are a few Indian inhabitants on the banks of the lake, who might live very comfortably, if they were not so immoderately fond of spirituous liquors. The lake is of an oval form, thirty-six miles in circumference, according to major Pike; and it is thickly studded with islands, some of which are extensive. By its means, the communication is kept up between the lakes Winnipic, Bourbon, and Lake Superior. It deserves to be mentioned, also, that in the treaty concluded between Great Britain and America it was fixed upon by the Americans, as the spot from which a line of boundary between the United States and the British territories was to run, until it struck the Mississippi; which, however, can never happen, as the north-west part of the Lake of the Woods is in lat. 49° 37' N., and long. 94° 31' W., and the source of the Mississippi, as explored by major Pike in 1805, is in lat. 47° 42' 40' N.

**WOODSORREL. See OXALIS.**

**WOODSTOCK**, a borough, market town, and parish in Wootton hundred, Oxon, standing on a brook which falls into the Isis, eight miles N. N. W. of Oxford, and sixty-two and a half W. N. W. of London; containing 246 houses and 1455 inhabitants. Woodstock is noted for its manufactures of fine wash-leather gloves and polished steel watch chains, &c. In the time of the Saxons here was a royal palace. Adjoining the town is Blenheim



house and park, the magnificent seat of the duke of Marlborough. Market on Tuesday.

WOODWARD (Dr. John), was born in 1665, educated at a country school, and sent to London, where he is said to have been put an apprentice to a linen draper. He was not long in that station, till he became acquainted with Dr. Peter Barwick, an eminent physician, who took him under his tuition and into his family. Here he prosecuted with great vigor and success the study of philosophy, anatomy, and physie. In 1692, Dr. Stillingfleet quitting the place of professor of physie in Gresham College, he was chosen to succeed him, and the year following was elected F. R. S. In 1695 he obtained the degree of M. D. by patent from archbishop Tension; and the same year he published his Essay toward a Natural History of the Earth. He afterward wrote many other pieces, which have been well received by the learned world. He founded a lecture in the university of Cambridge, to be read there upon his essay, &c., and handsomely endowed it. He died in 1728.

WOODWORM. See ONISCUS.

WOOL, *n. s.*

WOOL'FEL,

WOOL'LEN, *adj. & n. s.*

WOOL'LY, *adj.*

WOOL'PACK, *n. s.*

WOOL'SACK,

WOOL'WARD, *adv.*

Sax. *pul*; Bel. *wol*;

Teut. *wolle*; Gothic

and Swedish *ull*. The

fleece of sheep; that

which is woven into

cloth; any short, thick

hair: woolfel is skin

not stripped of the wool: woollen, made of wool; the cloth so made: woolly, clothed with, or consisting of wool: woolpack, or woosack, a bag containing wool; the seat of the judges in the house of lords; any thing bulky but light: woolward is in wool: obsolete.

What signifies

My fleece of woolly hair, that now uncurls? *Shaksp.*

In the cauldron boil and bake;

Wool of bat and tongue of dog. *Id.*

I was wont

To call them woollen vassals, things created

To buy and sell with groats. *Id.*

I have no shirt; I go woolward for penance. *Id.*

Woollen cloth will tenter, linen scarcely. *Bacon.*

Wool and woolfels were ever of little value in this kingdom. *Davies.*

Chaos of presby'try, where laymen guide

With the tame woolpack clergy by their side. *Cleavel.*

His breeches were of rugged woollen,

And had been at the siege of Bullen. *Hudibras.*

At bar abusive, on the bench unable,

Knave on the woosack, sop at council table. *Dryden.*

Gently they lay 'em down, as evening sheep

On their own woolly fleeces softly sleep. *Id.*

At dawn of day our general cleft his pate,

Spite of his woollen night-cap. *Id.*

Nothing profits more

Than frequent snows; Oh mayst thou often see

Thy furrows whitened by the woollen rain

Nutritious! *Philips.*

Odious! in woollen! would a saint provoke:

No, let a charming chintz and Brussels lace

Wrap my cold limbs, and shade my lifeless face. *Pope.*

Wool is a bel-esprit, and a woollen-drapeer. *Swift.*

Wool is the covering of sheep. See OVIS, and SHEEP. Wool resembles hair in a great many particulars; but besides its fineness, which constitutes an obvious difference, there are other particulars which may serve also to distinguish them from one another. Wool, like the hair of horses, cattle, and most other animals, completes its growth in a year and then falls off as hair does, and is succeeded by

a fresh crop. It differs from hair, however, in the uniformity of its growth, and the regularity of its shedding. Every filament of wool seems to keep exact pace with another in the same part of the body of the animal; the whole crop springs up at once; the whole advances uniformly together; the whole loosens from the skin nearly at the same period, and thus falls off if not previously shorn, leaving the animal covered with a short coat of young wool. Hairs are commonly of the same thickness in every part; but wool constantly varies in thickness in different parts, being generally thicker at the points than at the roots. That part of the fleece of sheep which grows in winter is finer than what grows in summer. While the wool remains in the state it was first shorn off the sheep's back, and not sorted into its different kinds, it is called fleece. Each fleece consists of wool of divers qualities and degrees of fineness, which the dealers therein take care to separate. The French and English usually separate each fleece into three sorts, viz. 1. Mother wool, which is that of the back and neck. 2. The wool of the tails and legs. 3. That of the breast and under the belly. The Spaniards make the like division into three sorts, which they call prime, second, and third; and, for the greater ease, denote each bale or pack with a capital letter denoting the sort. Among the ancients, the wools of Attica, Megara, Laodicea, Apulia, and especially those of Tarentum, Parma, and Altino, were the most valued. Varro assures us that the people there used to clothe their sheep with skins, to secure the wool from being damaged.

WOOLLEN CLOTH. See CLOTH.

WOOLLI, a small kingdom of Western Africa, extending along the north side of the Gambia, having Tenda on the south-east, and Bondow on the north-east. It is level, and covered entirely with wood. Park, in his first journey, received a very hospitable reception from the king, who, however, endeavoured to dissuade him from his journey.

WOOLMAN (John), a minister of the Society of Friends in North America, chiefly remarkable as an early and faithful advocate of the rights of the enslaved Africans, was born at Northampton, in Burlington county, West Jersey, early in the last century. He was the principal means of inducing this valuable body of religionists to part with all their slaves. A Memoir of him was published in London in 1815, to which we must refer the reader.

WOOLSTON (Thomas), an English divine, was born at Northampton in 1669, and educated at Cambridge. His first appearance in the learned world was in 1705, in a work entitled The Old Apology for the Truth of the Christian Religion, against the Jews and Gentiles, revived. He afterward wrote many pieces: but what made the most noise were his Six Discourses on the Miracles of Christ; which occasioned a great number of books and pamphlets upon the subject, and raised a prosecution against him. He was sentenced to a year's imprisonment, and to pay a fine of £100. He purchased the liberty of the rules of the King's-bench, where he continued after the expiration of the year, being unable to pay the fine. The greatest obstruction to his deliverance from confinement was the obligation of giving security not to offend by any future writings, he being resolved to write again as freely as before. He died January 27... 1732-3.

WOOLSTONECRAFT. See WOLLSTONECRAFT.

WOOLWICH, anciently Hulviz, Wolwiche, and Wolewic, a market-town of the county of Kent, is situated on the banks of the Thames, about eight miles from London. Market on Saturdays. This town, originally a straggling village, rose into notice in the reign of Henry VIII., who established a royal dock-yard here. Its size and consequence have been particularly increased since the establishment of the royal arsenal and royal artillery in the beginning of the last century. We regret that we cannot avail ourselves of a detailed description of all these establishments with which we have been favored, but see our article DOCKS.

About half way between the arsenal and the artillery barracks stands the grand dépôt of field artillery; it consists of several long store sheds, in which are deposited a number of batteries of field-guns completely equipped for active service in the field; the whole of the guns mounted on the forts and batteries, at home and abroad, are under the superintendence of this department; and the commanding officers of artillery, at all the stations, make half yearly reports to the head of the establishment, who is always the senior officer of the regiment, and is denominated the director-general of artillery.

Nearly opposite to the grand dépôt stands the spacious hospital for the artillery and sappers and miners. It is capable of containing 700 patients; and for cleanliness and comfortable arrangement may be said to be unrivalled. There is a medical library in this building, which contains the best works on that science, and which is supported by a subscription from the medical officers. It is under the superintendence of sir John Webb, who is the director-general and inspector of the medical department of the ordnance. A little below the grand dépôt there is a small barrack which was erected, about 1812, for the royal sappers and miners, who have their head-quarters here; but, as only as many of that corps are stationed here as are necessary for carrying on the military works, their numbers are very small: they are commanded by officers from the corps of royal engineers.

On the north side of Woolwich Common the barracks for the head-quarters of the royal regiment of artillery are erected; they stand nearly due east and west, and fronting to the south; the range is about 400 yards long by 250 deep, and they are divided into two wings connected by a handsome archway of stone, surmounted by the royal arms and groups of military trophies, and having four Doric columns in front; the left wing was erected about the year 1779, and the right about 1803. The front range of the barracks consists of two large buildings for the men and four for the officers; between each of these there is a low building, handsomely stuccoed, with Doric columns in front, and a colonnade above each; the first of these on the right contains the offices of the commandant of the garrison, the adjutant-general, and one office for each of the battalions of artillery; the next is most splendidly fitted up as a mess-room for the officers, and is supposed to be the largest in England. The next low building on the east side of the connecting archway is fitted up as a guard-room; but the upper story contains a reading-room and library of large dimensions for the officers; the leading daily and weekly papers, reviews, magazines, and pe-

riodical works of every description, are taken in here; and the library contains about 7000 volumes. The building next to the left end of the barracks is fitted up as a chapel, and is capable of containing 1000 persons. There is a very handsome window over the altar. Divine service is performed in it twice on each Sunday by the chaplains of the regiment; and the military band play some excellent pieces of sacred music.

In the rear of the front range towards the north there are two very large quadrangles, containing the barracks for the officers and men of the royal horse artillery, and stabling for their horses. During the late war both the quadrangles were occupied by this corps, but at present they only occupy a part of one. These quadrangles are named after the noblemen who were the masters-general of the ordnance when they were erected, the east being called Richmond and the west Chatham Square. To the north of these stands a range of barracks and stables, which was erected for the late corps of royal artillery drivers; but, that corps having been incorporated with the regiment of artillery in 1822, it is now occupied by the brigades of field artillery. At the north-east corner of the barracks there is a handsome riding-school, with a small barrack for the men of the riding department. The school is built like an ancient temple, has a grand appearance, and is about fifty-six yards long by twenty-two broad.

The whole of the artillery barracks will at present accommodate 2855 men, but, in case of emergency, they are adapted for 4700. The regiment consists of the horse and nine battalions of foot artillery, and a part of each is always at Woolwich to the amount of, at present, about 2700 men. The greatest strength of the regiment of artillery, horse and foot, at home and abroad, was, in January, 1814 (the last year of the war), 28,291 officers and men; but it is now reduced to 7199 officers and men. At the west end of the barracks there is a battery for mortars and howitzers, at which the men are practised in throwing shells at a flag-staff erected on the common.

The royal military repository adjoins the barrack fields, and has within these few years been surrounded by a regular fortification of sod-work, on which are mounted all the different sorts of cannon used in the defence of fortified towns. At this establishment the royal artillery are taught the whole of the duties of artillery in garrison, and undergo such a course of instruction as is calculated to enable them to meet and to overcome any emergency to which the peculiar nature of the artillery service may render them liable on active service.

Here are two large pieces of water, on which the men are taught to lay pontoons, to transport artillery upon rafts, and all the different methods that can be adopted for the passage of troops across rivers, &c. The repository grounds are tastefully laid out. The rotunda which was erected in Carlton gardens, at the fête given by his present majesty to the emperor of Russia and the king of Prussia, was removed to this place, and has been formed into a model room: its interior dimensions are immense.

In a shed near the model-room is the hearse on which the remains of the late emperor Napoleon were conveyed to his grave in St. Helena.

The Royal Military Academy was erected in the royal arsenal about the year 1719, but it does not



appear to have been regularly established until the year 1745, when it was founded by a warrant from George II. as an academy for instructing persons, intended for military officers under the ordnance, in mathematics and fortification, to qualify them for the service of the artillery and engineers. In this year the number of cadets was forty-eight, in 1783 they were augmented to sixty, in 1793 to ninety, in 1800 to 100, and in 1806 to 200, which was the highest establishment. Since the peace they have been gradually reduced, and the establishment is now at sixty. Some of the first mathematicians of this country have been employed here as professors.

The new Military Academy, situated on the south side of Woolwich Common facing the north, was completed in the year 1805; it is a handsome structure, built of brick in the castellated form, and consists of a centre and two wings united by corridors; the centre is a quadrangle and has octagonal towers at the angles. The wings contain the quarters of the military officers of the establishment, and sleeping-rooms for the cadets, each room containing four. In the rear of the principal building there are several ranges of detached houses containing the dining-room for the cadets, the public kitchen, the apartments of the housekeeper, and of the servants of the house.

The cadets are the sons of officers of the army or navy, or of respectable parents in civil life, and no boy can be admitted to the academy unless possessed of the following qualifications:—He must not be less than fourteen nor more than sixteen years of age, which is to be ascertained by the production of a certificate of his birth taken from the parish register and certified by the minister and churchwardens; but, if the parish register cannot be resorted to, an affidavit of the fact will be accepted.

At the south-west corner of Woolwich Common there is a veterinary establishment for the horses of the royal artillery; it adjoins the great road to Dover, and is well situated; it was built in the year 1805.

On the north side of the artillery barracks there is a barrack occupied by the fourth division of the royal marines, which was established here in the year 1805. A handsome, airy, and commodious marine hospital was erected near these barracks in 1815, for the accommodation of the sick of the division, and of the sick seamen from the ships of war stationed here. The establishments connected with the navy at Woolwich are under the control and superintendence of the Admiralty; and the whole of the civil and military establishments belonging to the ordnance are under the control of the master-general and board.

The church at Woolwich, which is dedicated to St. Mary Magdalene, is a spacious brick building, and stands on an eminence that overlooks the dock-yard. It has a plain tower at the west end, and consists of a nave, chancel, and aisles. It was rebuilt between the years 1726 and 1740, partly from the funds granted under queen Anne for building churches, and partly from contributions and legacies. The interior is handsomely fitted up, and has galleries on the north, south, and west sides. There are but few monuments.

There are three charitable establishments in this town: an alms-house, founded for five poor widows, in 1562, by sir Martin Bowes, in which they receive £25 a year besides coals; a girl's school,

built and endowed from a bequest made by Mrs. Anne Withers, in 1753, for teaching thirty poor girls to read and work with the needle; and a school founded under the will of Mrs. Mary Wiseman, in 1758, for educating, clothing, and apprenticing six orphan boys, the sons of shipwrights who had served their apprenticeship in the dock-yard. Exclusive of those belonging to government there are no manufactories in this neighbourhood, except sugar potteries, of which there are several on Plumstead Common.

WOOTTON-UNDER-EDGE, a Post and market town, in Berkley hundred, Gloucestershire, nine miles from Minchinghampton, and 109 west by north of London. It is seated beneath a pleasant and fertile eminence. The town is well built, and has a handsome church, the tower of which is adorned with battlements and pinnacles. Here is a free-school, founded in 1385, by lady Catherine Berkeley; it has also alms-houses for six poor men and as many women. In the town and neighbourhood are several cloth manufactories. Market on Friday.

WORCESTER (Tiftoft), marquis of, a nobleman of a very extraordinary genius for mechanical discoveries, who flourished in the age of lord Verulam, and in 1663 published a curious philosophical work, entitled *A Century of Inventions*.

WORCESTER, a city in Worcestershire, situate on the banks of the Severn, three miles and a quarter from Droitwich, and 111 north-west by west of London. It contains nine parishes within the city. The cathedral was erected by Etheldred, king of Mercia, in 680, when it was a convent of secular priests; a short time after the conquest, it was laid in ashes by the Welsh, but soon after nearly rebuilt with greater magnificence, though not entirely completed till the year 1374. It is in length 514 feet, in breadth seventy-eight, and the tower 200 feet high. On the south side is a chapel of most curious workmanship: both the church and cloisters are arched with stone of a reddish color; and in the tower are eight good bells, the largest weighing 6600 pounds. The window, in the west front, was rebuilt in an elegant manner in 1789, in commemoration of the honor of his late majesty's visit at the music meeting in 1788; and in 1792 an elegant window was built, at the east end of the cathedral, containing some excellent paintings on glass. The pulpit is octagonal and of stone, curiously carved in the Gothic manner with the symbols of the four evangelists, and a representation of the New Jerusalem, as described in the Revelations. The altar-piece is of stone, perforated and glazed. The chief monument in the cathedral is that of king John standing in the midst of the choir. On each side of the king are those of the bishops Wolstan and Oswald. On the south side of the altar is prince Arthur's sepulchral chapel; it was repaired and beautified in 1791. There are also several other handsome monuments, particularly one of Dr. Hough, by Roubiliac.

Fronting the cathedral is a fine broad street, called the High Street, in which is the Guildhall, erected in 1720. The streets are in general broad, well paved and lighted, and the town is well supplied with water. The county gaol has two large court yards divided by an iron palisade, and so formed that the gaoler and turnkey may have a view of every cell. The city jail stands in Friar Street, so called from a house of Gray Friars which originally



stood therein. A new jail has been erected of late years, which cost £19,000. Here is also a commodious house of industry, erected in 1784. The theatre is a neat small building, erected in 1781. Here are also several alms-houses and charity-schools, many hospitals, and a public infirmary. Among the parish churches, nine within the walls and two without, none deserve particular notice but St. Andrew's, which has an exceedingly handsome spire 245 feet high, and in the parish is a noble free-school, founded by Henry VIII. The bridge over the Severn is of stone, having five semicircular arches, erected in 1780. Here are meeting-houses for various sectaries, as well as Roman Catholics. Edgar's tower, a strong portal in College Green, was part of its ancient castle, and near it is the register office.

Worcester has every convenience and accommodation in common with most cities, having its public banks, fire offices, libraries, assemblies, music-meeting, &c. The bishop's palace stands in a commanding situation on the banks of the Severn. The manufactures are those of china, carpets, gloves, and lace; and its trade is greatly increased by a canal navigation communicating with all parts of the kingdom. The present corporation, by charter of James I., consists of a mayor, recorder, sheriff, six aldermen, twenty-four common-councilmen, and forty-eight assistants. It sends two members to parliament, chosen by the citizens, admitted to their freedom by birth or servitude, or by redemption: the number of voters is about 1700; and the returning officer is the sheriff.

This city suffered much during the wars between the houses of York and Lancaster; but the most remarkable event here was the famous battle between the English army, under Cromwell, and the Scotch, in the cause of Charles II. in 1650, when the royalists had 2000 killed and 8000 taken prisoners, most of whom were sold as slaves to the American colonies; after this, Cromwell ordered the walls of the city to be rased to the ground. This city gives title of marquis to the duke of Beaufort. The market-house is a new and commodious addition to the comforts of the city. The hop-market is the most considerable in the kingdom during the hop season, and is governed by guardians chosen out of every parish in the city. The race course is three miles in circumference, called Pitchcroft, situate to the north-west of the city. Markets, Wednesday, Friday, and Saturday.

WORCESTER, county, Massachusetts, bounded north by New Hampshire, east by Middlesex and Norfolk counties, south by Rhode Island and Connecticut, and west by Hampden, Hampshire, and Franklin counties.

WORCESTER, a post town, the capital of Worcester county, Massachusetts; thirty nine miles N. N. W. of Providence, forty west by south of Boston. It contains an elegant court house, a jail, a bank, two paper mills, two printing offices, from each of which is issued a weekly newspaper; and three houses of public worship, two for Congregationalists, and one for Baptists. It is pleasantly situated, and is the most considerable inland town in New England, and is a place of much wealth and trade. The principal street is upwards of a mile in length; it is well built, and has a number of elegant houses. In 1791 two editions of the bible, one in large folio the other in royal quarto, the first of the kind published in America, were printed in this town.

WORCESTERSHIRE. This county evidently takes its name from its principal city Worcester, the etymology of which is deduced from Wire-cester, by changing its vowel. The name Wigornia occurs in Florence of Worcester, who died about sixty years before Joseph of Exeter wrote. Abingdon derives the Saxon name from the Wears on the river. The inhabitants, with those of the adjoining parts, were in Bede's time, prior to the division of the island into counties, called Wiccias, a name derived, as we may reasonably conjecture, from the salt-pits which it contains, the old English name of which is witches. This county formerly constituted the second part of the country of the Cornavii, or Dorbuni. In the time of the Romans it was swampy, overgrown with wood, and consequently but little known to that cautious and warlike people; neither Ptolemy nor Antonine take any notice of it whatever; and of the four great Roman roads which cross the kingdom but one, viz. the Ryknild Street, approaches its borders: the Ryknild Way, however, crosses a small portion of the county, entering it near Beoly, and, passing on to Edgbaston in Warwickshire, leaves the town of Birmingham a little to the west. The principal stations, or camps, in this county are on Wassal and Whitebury Hill, near the banks of the Severn, the neighbourhood of Kempsey, Little Malvern, and upon Wobury Hill. Worcestershire constituted under the Saxon Heptarchy a part of the kingdom of Mercia, and was the frequent scene of sanguinary contests between the Saxons and the Danes.

Worcestershire is an inland county, bounded on the north by Staffordshire, on the east by Warwickshire, on the south by Gloucestershire, on the west by Herefordshire, and on the north-west by Shropshire; and lies between lat. 52° 15' and 52° 39' N., and between long. 1° 30' and 2° 30' W. from London: its mean length from north to south down the Severn, the shortest line, is about thirty miles, and its mean breadth from east to west is twenty-six miles, and contains 936 square miles, or 600,000 acres; of this two-thirds are to the east, and one-third to the west, of the river Severn. To this may be added, for detached parts, 20,000 acres, making in the whole 618,240 acres. This county is divided into five hundreds and limits, containing 152 parishes, one city (Worcester), and eleven market-towns.

The air of this county is mild, warm, and healthy, there being but few lakes and very little swampy ground; the inhabitants of the Malvern Hills enjoy a most salubrious and temperate climate, a circumstance which, conjointly with the beautiful rich and picturesque scenery which they furnish, contributes not a little to induce multitudes of fashionable loungers to make the villages of Great and Little Malvern, which are situated upon the western side of these hills, the temporary theatres of their æstival gaities; but the Wells House is the centre of attraction, on account of the contiguity of the Spa. The soil of this county may be thus stated:—To the north of Worcester, which is situated nearly in the centre of the county, it chiefly consists of rich loamy sand with a small portion of gravel; there is some very light sand, a few spots of clay, of black peat earth the same, but chiefly inclining towards the east. In this quarter (the east) the prevailing soil is, for the most part, a strong clay. The waste land, which is not very considerable, in general is a deep, black peat earth.



To the south, between Worcester and the vale of Evesham, the soil is partly of a red marl, and part strong loamy rich clay; other parts sandy loam; and there is a small vein of land which partakes of each of these qualities; the sub-soil, more especially under the second division, lime-stone. In the vale the soil is particularly deep, of a darkish-colored earth, with a sub-stratum of strong clay and some gravel. Beyond this, on the confines of the county, and in the small detached parts, including the Cotswold Hills in the county of Gloucester, a limestone prevails on the upper lands and a rich loam on the lower. To the south, between Worcester and Malvern, the general character of the soil is a clay mixed with gravel in different proportions; the former prevailing in the lower and the latter in the higher situations. To the left of this line, including Malvern Chase, a deep surface of clay is found in some places; in others a rich loam inclining to sand; sub-stratum supposed to be marl. To the right, till we approach a central point between the west and north, the proportion of clay increases gradually, till at last a strong loam occurs; this again becomes gradually more gravelly till it joins the light sands in the north; below partly marl, partly soft sandy stone, and some limestone is found: in each of these districts is some very rocky land; and in most some loose stony soil, or stone brash, is met with, but no where are there any traces of chalk or flint.

The principal rivers of this county are the Severn, the Avon, the Teme, and the Stour. The Severn, the principal river of this county, and the second in rank after the Thames—whether we regard the length of its course, the majesty of its stream, or the extensive advantages which the commerce of the county derives from it—takes its name from the British word *Sabi* or *Sabrina*, which denotes sandy, and allude to the extreme muddiness of its water, which is particularly remarkable after rain, by a phenomenon, almost peculiar to this river, and expressly denominated by the tenants of its banks the *Boar*, which is merely a swelling of its waters by the inundations of the mountain torrents which it receives in its course through Wales, its source being at Plinlymmon Hill, in Montgomeryshire. The name is derived from the noise, which at a distance this accumulated mass of water, rising many feet perpendicular above the customary level of the stream, makes in its devastating progress; those who happen to be overtaken by it upon its banks are involved in inevitable destruction. Adapting the British name to their own orthography, the Romans latinised the name of this river by giving it a feminine termination, and calling it *Sabrina*, whence with a trifling alteration, may be easily traced the Severn of the moderns. The name by which the Welsh still designate this river fully expresses their sense of its importance, *Ha an Rian*, in their language signifying the Queen of Rivers. The Severn, having washed the fortification of the venerable capital of the county of Salop, enters the county of Worcester just above Bewdley, and pursuing a southern course nearly through the centre of the county, receives, at Stourport, the tributary stream of the Stour, and the commerce of the northern and inland counties, poured in by the Staffordshire Canal; and about seven miles lower is joined by the Salwarp: somewhat lower it is augmented by the Beverbourne or Otter River, so called from the multitude of otters which formerly frequented it.

It next washes the walls of the rich and beautiful city of Worcester, and about one mile lower is joined by the Teme. From this place, during the remainder of its course through this county, it receives no river of importance till it reaches the southern confines at Tewksbury, where it is joined by the Avon, which enters this county to the north-east, near the little village of Salford, winding through the vale of Evesham to the town from which it is named; then to the town of Pershore, and continuing thence a more southerly direction, it finally blends its water with the Severn. The Teme enters this county to the north-west near Tenbury, and falls into the Severn about one mile below Worcester. The Stour enters this county near Stourbridge, passes the town of Kidderminster, receiving a variety of small rills from Dudley, Kinver, Wolverly, &c., and empties itself into the Severn near Stouport. The canals of this county are, first, the Droitwich, about five miles and a half long from Droitwich to the Severn, near the junction of that river with the Salwarp; second, the Worcester and Birmingham Canal, which commences at the latter town, and after a course of thirty-one miles and a half falls into the Severn on the south side of the city of Worcester, at a place called Diglis; third, Dudley Extension Canal, joining the Dudley Canal near Netherton, making a course of ten miles and a half, falls into the Birmingham and Worcester Canal near Selly Oak without a lock. The Dudley canal runs through so small a portion of this county as not to merit any particular account. From the Birmingham and Worcester Canal a branch strikes off at King's Norton, and soon after entering the county of Warwick proceeds to Stratford where it falls into the Avon. The Staffordshire Canal enters this county near the village of Kinver, a short distance to the west of Stourbridge, and, pursuing a course nearly parallel to the little river Sour, falls into the Severn at Stourport.

This county is not particularly famous for mines and minerals; and indeed nature has been so propitious to its surface that it is rich enough without searching beneath; and it is generally in more mountainous countries that valuable mines and minerals abound: it is not, however, wholly destitute of mines; brick clay, gravel, sand, and marl, are common, and limestone in the hills and various other parts of the county, and some places burnt for use. Freestone for building is found in various places. Coal is raised at Dudley and in the north-west of the county at Mable and at Pensax. Quartzun, a siliceous primeval stone, forms the basis of the Malvern Chain; and also the Sickey, north-east of Bromsgrove. Sal commune, common salt; one of the richest sources in the whole world of this domestic article is at Droitwich in this county. And in the vale of Evesham there are quarries of calcareous flagstone. Its vegetable productions are corn, pulse, fine wool, hops, cyder, and perry; and it abounds with fine pastures for cattle.

Worcestershire sends twelve members to parliament; viz. four for the county, two for the city of Worcester, two for Evesham, one for Droitwich and one each for Bewdley, Dudley, and Kidderminster.

Samuel Butler, a poet of a very singular cast, was born at Strenham 1612. (Author of the celebrated *Hudibras*.) Died very poor 1680.—John Baskerville, an eminent printer and letter-founder

who first introduced into this country a new and elegant kind of types for fine printing, was born at Wolverly 1706. Died 1775.—John de Feckenham, so called because he was born of poor parents in a cottage near the forest of Feckingham, his right name being Howman. He was the last abbot of Westminster, and died in 1585.—William Habington, an historian and poet. Born 1605. Died 1654.—Edward Kelley, a famous necromancer and associate with the noted Dr. Dee. Born at Worcester 1555. Died 1595.—Lord George Lyttelton, an elegant historian, poet, and miscellaneous writer. Born at Hagley 1709. Died 1773.—Cardinal Reginald Pole, an eminent statesman and archbishop of Canterbury in the reign of queen Mary. Born at Stoverton Castle 1500. Died 1558.—Lord John Somers, chancellor of England, a most incorrupt lawyer and honest statesman. Born at Worcester 1652. Died 1716. The manufactures of this county are porcelain, glass, pottery, iron, carpets, gloves, hosiery, stuffs, &c.

WORD, *n. s., v. n., &* Sax. *word*; Belgic *word*'y, *adj.* [*v. a.*] *word*; Teut. *wort*; Gothic, Swedish, and Danish *ord*. A single part of speech; short discourse; talk; dispute; promise; order; signet; tidings; affirmation; Scripture; a Scripture name of the Lord Jesus Christ: to word is to dispute; to express in words: wordy, verbose; full of words.

They say this church of England neither hath the word purely preached, nor the sacraments sincerely ministered. *Whitgift.*

Why should calamity be full of words? *Shakspeare.*  
Let them have scope.

A word, Lucilius, *Id.*  
How he received you. *Id.*  
Some words there grew 'twixt Somerset and me. *Id.*

I take your princely word for these redresses. *Id.*  
Every person has enough to do to work out his own salvation; which, if we will take the apostle's word, is to be done with fear and trembling. *Decay of Piety.*

All of them stout and hard people, false of their word, treacherous in their practices, and merciless in their revenges. *Heylyn.*

He commanded the men to be ranged in battalions, and rid to every squadron, giving them such words as were proper to the occasion. *Clarendon.*

Thou my Word, begotten Son, by thee  
This I perform. *Milton.*  
Whether his extemporary wording might not be a defect. *Fell.*

In a word, the gospel describes God to us in all respects such a one as we would wish him to be. *Tillotson.*

Cease this contention: be thy words severe,  
Sharp as he merits; but the sword forbear. *Dryden.*  
I know you brave, and take you at your word;  
That present service, which you vaunt, afford. *Id.*

He that descends not to word it with a shrew, does worse than beat her. *L'Estrange.*

Whether I have improved these fables or no, in the wording or meaning of them, the book must stand or fall to itself. *Id.*

Amongst men who confound their ideas with words, there must be endless disputes, wrangling, and jargon. *Locke.*

We need not lavish hours in wordy periods,  
As do the Romans, ere they dare to fight. *Philips.*  
A friend who shall own thee in thy lowest condition,  
answer all thy wants, and, in a word, never leave thee. *South.*

The apology for the king is the same, but worded with greater deference to that great prince. *Addison.*

If I appear a little word-bound in my first solutions, I hope it will be imputed to the long disuse of speech. *Spectator.*

Intemperate rage, a wordy war, began. *Pope.*  
Each wight who reads not, and but scans and spells,  
Each word-catcher that lives on syllables. *Id.*

WORK, *v. n., v. a., & n. s.* *Pret.* worked, or wrought. Saxon *weorcan*; Swed. *werkan*; Dan. Belgic and Goth. *werk*. labor; travail; toil; act; be in action or motion; ferment; be tossed or agitated; make way: as a verb active, to labor; manufacture; act upon or influence; manage; effect, taking out, up, &c.: as a noun substantive, labor; toil; action; attempt; any thing made; effort; management: the compounds seem sufficiently explained by the quotations.

Go and work; for no straw shall be given you. *Exodus v. 18.*  
Every carpenter and workmaster that laboureth. *Ecc. xxxviii.*

His father was a worker in brass. *1 Kings vii. 14.*  
They that work in fine flax. *Isaiah xix. 9.*  
All things work together for good to them that love God. *Romans viii. 28.*

Timotheus, my workfellow, and Lucius, salute you. *Romans.*

In having but fortie foot workmanly dight,  
Take saffron enough for a lord and a knight. *Tusser.*  
What time this world's great workmaster did cast  
To make all things, such as we now behold,

It seems that he before his eyes had placed  
A goodly pattern, to whose perfect mould  
He fashioned them so comely. *Spenser.*

Ye fair nymphs, which oftentimes have loved  
The cruel worker of your kindly smarts,  
Prepare yourselves, and open wide your hearts. *Id.*

The most fine-fingered workwoman on ground,  
Arachne, by his means was vanquished. *Id.*

Work on,  
My medicine, work! thus credulous fools are caught. *Shakspeare.*

Without the king's assent  
You wrought to be a legate. *Id. Henry VIII.*  
Glory grows guilty of detested crimes,  
When for fame's sake

We bend to that the working of the heart. *Shakspeare.*  
The quick forge and workinghouse of thought. *Id. Henry V.*

How full of briars is this workingday world! *Shakspeare.*  
When workmen strive to do better than well,  
They do confound their skill in covetousness. *Id.*

We will fetch thee straight  
Daphne roaming through a thorny wood,  
Scratching her legs, that one should swear she bleeds.  
And at that sight shall sad Apollo weep.

So workmanly the blood and tears are drawn. *Id.*  
Tell her but a workday fortune. *Id.*

He could have told them of two or three gold mines,  
and a silver mine, and given the reason why they forbore  
to work them at that time, and when they left off from  
working them. *Raleigh.*

Gravity worketh weakly, both far from the earth, and  
also within the earth. *Bacon.*

If you would work any man, know his nature and  
fashions, and so lead him. *Id.*  
Try the force of imagination upon staying the work-  
ing of beer, when the barm's put in. *Id.*



Whether we *work* or play, or sleep or wake,  
Our life doth pass, and with time's wings doth fly.

*Davies.*

He moulded him to his own idea, delighting in the  
choice of the materials ; and afterwards, as great archi-  
tects used to do, in the *workmanship* of his regal hand.

*Wotton.*

Sunday, the other days, and thou  
Make up one man, whose face thou art ;  
The *workdays* are the back part.

*Herbert.*

The instrumentality of riches to *works* of charity  
has rendered it necessary in every Christian common-  
wealth by laws to secure propriety.

*Hammond.*

These positive undertakings *wrought* upon many to  
think that this opportunity should not be lost.

*Clarendon.*

Nor number nor example with him *wrought*  
To swerve from truth, or change his constant mind.

*Milton.*

Nothing lovelier can be found in woman,  
Than good *works* in her husband to promote.

*Id.*

Desire, which tends to know  
The *works* of God, thereby to glorify

The great *workmaster*, leads to no excess.

*Id.*

I should have doubted the operations of antimony,  
where such a potion could not *work*.

*Browne.*

It is possible to see what *work* our adversaries make  
with this innocent canon.

*Stillington.*

Who would trust chance, since all men have the  
seeds

Of good and ill, which should *work* upward first ?

*Dryden.*

The ground, unbid, gives more than we can ask ;  
But *work* is pleasure, when we chuse our task.

*Id.*

Let it be pain of body, or distress of mind, there's  
matter yet left for philosophy and constancy to *work*  
upon.

*L'Estrange.*

When this reverence begins to *work* in him, next  
consider his temper of mind.

*Locke.*

Of all serpents his bite is the most pernicious, yet  
*worketh* the slowest.

*Grew.*

We see the *workings* of gratitude in the Israelites.

*South.*

You spoke me fair, but betrayed me : depart from  
me, you professors of holiness, but *workers* of iniquity.

*Id.*

Natural philosophy has sensible objects to *work*  
upon ; but then it often puzzles the reader with the  
intricacy of its notions.

*Addison.*

This mint is to *work off* part of the metals found in  
the neighbouring mountains.

*Id.*

Now, Marcus, thy virtue's on the proof ;

Put forth thy utmost strength, *work* every nerve,

And call up all thy father in thy soul.

*Id.*

I *worked* a violet leaf.

*Spectator.*

Holydays, if haply she were gone,

Like *workdays*, if wish would soon be done.

*Gay.*

Mere personal valour could not supply want of know-  
ledge in building and *working* ships.

*Arbutnot.*

Hast thou suffered at any time by vagabonds and  
pilferers ? Esteem and promote those useful charities  
which remove such pests into prisons and *workhouses*.

*Atterbury.*

Not in the *works* of bloody Mars employed,

The wanton youth inglorious peace enjoyed.

*Pope.*

To hasten his destruction, come yourself,

And *work* your royal father to his ruin.

*A. Philips.*

Each herb he knew that *works* or good or ill,

More learned than Mesve, half as learned as Hill.

*Harte.*

Flavia is very idle, and yet very fond of fine *work* :  
this makes her often sit *working* in bed until noon.

*Lav.*

WORK, CARPENTERS, CLOCK, CROWN, FIELD,  
FIRE, FRET, GROTESQUE, HORN, MOSAIC. See  
these articles ; also FORTIFICATION and PYRO-  
TECHNY.

To *WORK*, in the manege. To *work* a horse is  
to exercise him at pace, trot, or gallop, and ride  
him at the manege. To *work* a horse upon volts,  
or head and haunches in or between two heels, is  
to passage him, or make him go sideways upon pa-  
rallel lines.

*WORK*, in sea language, is to direct the move-  
ments of a ship, by adapting the sails to the force  
and direction of the wind. See SEAMANSHIP.

*WORKHOUSE* is also a place where indigent,  
vagrant, and idle people, are set to *work*, and sup-  
plied with food and clothing. *Workhouses* are of  
two kinds, or at least are employed for two differ-  
ent purposes. Some are used as prisons for vag-  
rants or sturdy beggars, who are there confined and  
compelled to labor for the benefit of the society  
which maintains them ; whilst others, sometimes  
called poor-houses, are charitable asylums for  
such indigent persons, as through age or infirmity  
are unable to support themselves by their own  
labor.

*WORKSOP*, a market-town and parish in Bas-  
set-law hundred, Nottinghamshire, twenty miles  
north of Nottingham, and 142½ north-west of Lon-  
don. It consists principally of two streets, and al-  
though small, it is a very neat town, lying in a  
pleasant valley near the source of the river Ryton,  
and noted for its malt and liquorice. Market on  
Wednesday.

*WORLD*, *n. s.*

*WORLD'LING*,

*WORLD'L, adj. & adv.*

*WORLD'LINES, n. s.*

Sax. *werld* ; Belgic  
*wereld* ; Swed. *werald* ;  
Goth. *verold*. The uni-  
verse ; the great collec-  
tive idea of all bodies whatever ; the system of  
beings ; the earth ; present life ; course of things ;  
mankind ; a great multitude ; manners of men : a  
worldling is a man devoted to this world ; a covet-  
ous man : worldly is secular ; relating to this life ;  
human : as an adverb, with relation to this life : the  
noun substantive corresponding.

God hath in these last days spoken unto us by his  
Son, by whom he made the *worlds*.

*Heb. i. 2.*

God of the *world* and *worldlings*,

Great Mammon ! greatest god below the sky. *Spenser.*

This hath bred high terms of separation between  
such and the rest of the *world*, whereby the one sort are  
named the brethren, the godly ; the other, *worldlings*,  
time-servers, pleasers of men more than of God.

*Hooker.*

Many years it hath continued, standing by no other  
*worldly* mean but that one only hand which erected it.

*Id.*

The bassa having recommended Barbarussa, it was a  
*world* to see, how the court was changed upon him.

*Knolles.*

You a *world* of curses undergo,

Being the agents, or base second means.

*Shakspeare.*

I'm in this earthly *world*, where to do harm

Is often laudable ; to do good sometime

Accounted dangerous folly.

*Id.*

He is divinely bent to meditation ;

And in no *worldly* suits should he be moved,

To draw him from his holy exercise.

*Id.*

For his weeping in the needless stream ;

Poor dear, quoth he, thou makest a testament

As *worldlings* do, giving thy sum of more

To that which had too much.

*Id.*

'Tis the duke's pleasure,

Whose disposition, all the *world* well knows,

Will not be rubbed nor stopped.

*Id.*

It is a token of a *worldly* wise man, not to contend  
in vain against the nature of times wherein he liveth.

*Raleigh.*

Garments richly woven  
And *worlds* of prize. Chapman.  
Ferdinand Magellanus was the first that compassed  
the whole *world*. Heylyn.  
He was willing to declare to all the *world*, that, as  
he had been brought up in that religion established in  
the church of England, so he could maintain the same  
by unanswerable reasons. Clarendon.  
They'll practise how to live secure,  
*Worldly* or dissolute, on that their lords  
Shall leave them to enjoy. Milton.  
It brought into this *world* a *world* of woe. Id.  
Subverting *worldly* strong, and *worldly* wise,  
By simply meek. Id.  
The making of a will is generally an uneasy task,  
as being at once a double parting with the *world*. Fell.  
Happy is she that from the *world* retires,  
And carries with her what the *world* admires. Waller.  
Christian fortitude consists in suffering, for the love  
of God, whatever hardships can befall in the *world*. Dryden.  
That other on his friends his thoughts bestows;  
The covetous *worldling*, in his anxious mind,  
Thinks only on the wealth he left behind. Id.  
Since your mind is *worldly* bent,  
Therefore of the two gifts in my dispose,  
Think ere you speak, I grant you leave to choose. Id.  
There were a world of paintings, and among the rest  
the picture of a lion. L'Estrange.  
This cannot be done, if my will be *worldly* or volup-  
tuously disposed. South.  
If knowledge of the *world* makes man perfidious,  
May Juba ever live in ignorance. Addison.  
This through the east just vengeance hurled,  
Love lost poor Antony the *world*. Prior.  
By the *world*, we sometimes understand the things of  
this *world*; the variety of pleasures and interests which  
steal away our affections from God. Sometimes we  
are to understand the men of the *world*, with whose so-  
licitations we are so apt to comply. Rogers.  
The girl might pass, if we could get her  
To know the *world* a little better;  
To know the *world*! a modern phrase  
For visits, ombre, balls, and plays. Swift.  
We turn them over to the study of beauty and dress,  
and the whole *world* conspires to make them think of  
nothing else. Law.  
Persons of conscience will be afraid to begin the  
*world* unjustly. Clarissa.  
WORM, *n. s.*, *v. n.*, & *v. a.* Sax. *pyrm*; Belg.  
WORM'EATEN, *adj.* } *worm*; Teut. *warm*;  
WORM'WOOD, *n. s.* } Goth. *orm*; Latin  
WORM'Y, *adj.* } *vermis*. A small  
harmless serpent that lives in the earth; an insect  
that breeds in the body; the animal that spins  
silk; a grub; any thing vermiculated or spiral;  
any thing tormenting: to worm is to work se-  
cretly: to drive by slow and scanty means; deprive  
of worms: wormeaten is gnawed or devoured of  
worms; old; worthless: wormwood, a shrub:  
wormy, full of worms.  
Though worms devour me, though I turn to mold,  
Yet in my flesh I shall his face behold. Sandys.  
His chamber all was hanged about with rolls,  
And old records from ancient times derived;  
Some made in books, some in long parchment scrolls,  
That were all wormeaten, and full of canker holes. Spenser.  
Spirits that in cross-ways and floods have burial,  
Already to their wormy beds are gone. Shakspeare.  
Help me into some house,  
Or I shall faint! A plague o' both your houses!  
They have made worms meat of me. Id.  
Thou owest the worm no silk, the sheep no wool. Id.

The mortal worm. Id.  
'Tis no awkward claim,  
Picked from the worm-holes of long-vanished days,  
Nor from the dust of old oblivion raked. Id.  
The worm of conscience still begnaw thy soul. Id.  
She was weaned; I had then laid  
Wormwood to my dug. Id.  
When debates and fretting jealousy  
Did worm and work within you more and more,  
Your colour faded. Herbert.  
Thine's like wormeaten trunks cloathed in seal's  
skin;  
Or grave, that's dust without, and stink within. Donne.  
Physicians observed these worms engendered 'tween  
the body of man. Harvey.  
The chains of darkness, and the undying worm. Milton.  
Yet can I not persuade me thou art dead,  
Or that thy course corrupts in earth's dark womb,  
Or that thy beauties lie in wormy bed. Id.  
Every one that keepeth a dog should have him  
wormed. Mortimer.  
The threads of screws, when bigger than can be  
made in screw-plates, are called worms. The length of  
a worm begins at the one end of the spindle, and ends  
at the other. Moron.  
I ask whether one be not invincibly conscious to  
himself of a different perception, when he actually  
tastes wormwood, or only thinks on that savour? Locke.  
They find themselves wormed out of all power, by a  
new spawn of independents, sprung from your own  
bowels. Swift.  
WORM, in chemistry, is a long winding pipe,  
placed in a tub of water, to cool and condense the  
vapors in the distillation of spirits.  
WORM, in gunnery, is a screw of iron, to be fixed  
on the end of a rammer, to pull out the wad of a  
firelock, carbaine, or pistol; and is the same with  
the wad-hook, only the one is more proper for small  
arms, and the other for cannon.  
WORM, BLIND. See ANGIUS.  
WORM, EARTH. See LUMBRICUS.  
WORM, GLOW. See LAMPYRIS.  
WORM GRASS, in botany. See SPIGELIA.  
WORM, SILK. See SILK.  
WORM, SLOW. See ANGIUS.  
WORMING OF DOGS, a barbarous practice of  
cutting a small sinew out of the tongue of a dog,  
which has now become obsolete, as it neither acts  
as a preventative of madness, nor as disabling  
them, if mad, from biting.  
WORMIUS (Olaus), a learned Danish physi-  
cian, born in 1588, at Arhusen in Jutland. After  
studying at home, he studied at several foreign uni-  
versities, and travelled to various parts of Europe  
for improvement. He returned home in 1613, and  
was made professor of the belles lettres in the uni-  
versity of Copenhagen. In 1615 he was made  
Greek professor; and in 1624 professor of physic,  
which he held till his death. These occupations  
did not hinder him from practising, and from being  
the fashionable physician: the king and court of  
Denmark always employed him; and Christian  
IV., as a recompense for his services, conferred on  
him a canonry of Lunden. He published some  
pieces on subjects relating to his profession, several  
works in defence of Aristotle's philosophy, and se-  
veral concerning the antiquities of Denmark and  
Norway; for which latter he is principally regarded,  
as they are very learned, and contain many curious  
particulars. He died in 1654.



**WORMS**, a city in the west of Germany, well known in history. It stands on the left bank of the Rhine, a few hundred yards from the river, and is, like most old towns in Germany, surrounded with a decaying wall. The streets are dark and narrow; the cathedral, a ponderous Gothic building, with dismantled walls. The population is said to have been formerly considerable; but the city having been laid waste by the French in the devastation of the palatinate, in 1689, part of the inhabitants retired to Frankfort on the Maine or to Holland. Of late, however, the place is rather on the increase. The greater part are Lutherans. The public buildings are the mint, the town-house, in which Luther appeared before the diet in 1521, and the new church. The environs are fertile, and remarked for the quality of their wine. Few places have suffered more from war and other calamities. So early as 407 it was ravaged by the Vandals; in 451, and 538, by the Huns. It has suffered also by fires; and, on one or two occasions, by earthquakes. It is now subject to Hesse-Darmstadt, and is twenty-five miles south of Mentz.

**WORMS**, vermes, in zoology. See **ZOOLOGY**.

**WORMS** in the human body. See **MEDICINE**.

**WORMSEED**, in botany, a species of chenopodium.

**WORMWOOD**, in botany. See **ARTEMISIA**.

**WORMWOOD**, **WILD**, a species of parthenium.

**WORNIL**, *n. s.*

In the backs of cows, in the summer, are maggots generated, which in Essex we call *wornils*, being first only a small knot in the skin. *Derham.*

**WORRY**, *v. a.* Sax. *weorpen*, whence perhaps warray. To tear; mangle; harass.

If we, with thrice such powers left at home, Cannot defend our own doors from the dog, Let us be *worried*. *Shakespeare. Henry V.*

The fury of the tumults might fly so high as to worry and tear those in pieces, whom as yet they but played with in their paws. *King Charles.*

For want of words, or lack of breath,

Witness when I was *worried* with thy peals. *Milton.*

It has pleased Providence at length to give us righteousness instead of exaction, and hopes of religion to a church *worried* with reformation. *South's Sermons.*

Let them rail,

And *worry* one another at their pleasure. *Rowe.*

I shall not suffer him to *worry* any man's reputation, nor indeed fall on any person whatsoever. *Addison.*

Madam, contrive and invent,

And *worry* him out, till he gives his consent. *Swift.*

**WORSE**, *adj., adv., n. s.* } The comparative

**WORSE**, *adj.* [*& v. a.*] of bad : bad, worse, worst. Saxon *pyrr*. More bad; more ill; in a manner more bad : *worser*, though used by Shakespeare and Dryden, is a vile barbarism.

Why should he see your faces *worse* liking than the children of your sort? *Daniel i. 10.*

Was never man, who most conquests achieved, But sometimes had the *worse*, and lost by war. *Spenser.*

The more one sickens, the *worse* at ease he is. *Shakespeare.*

Perhaps more valid arms,

Weapons more violent, when next we meet, May serve to better us, and *worse* our foes. *Milton.*

A dreadful quiet felt, and *worser* far Than arms, a sullen interval of war. *Dryden.*

In happiness and misery the question still remains, how men come often to prefer the *worse* to the better, and to chuse that, which, by their own confession, has made them miserable? *Locke.*

**WORSHIP**, *n. s., v. a. &* Sax. *weorðscype*.  
**WORSHIPFUL**, *adj.* [*v. n.*] From worth. Excellence; dignity;  
**WORSHIPFULLY**, *adv.* eminence; a character or title of honor; adoration : to adore; honor; respect : perform acts of adoration : worshipful is claiming respect by dignity or character : the adverb corresponding : a worshipper is one who worships.

Thou shalt *worship* no other God. *Exod. xxxiv. 14*  
 The people went to *worship* before the golden calf. *1 Kings.*

The humble guest shall have *worship* in the presence of those who sit at meat with him. *Luke xiv. 10.*

Elfin born of noble state,  
 And muckle *worship* in his native land,  
 Well could he tourney, and in lists debate. *Spenser.*

The law of nature teacheth that the true and living God ought to be *worshipped*, and that a sufficient and convenient time is to be set apart for the same. *White.*

I belong to *worship*, and affect  
 In honour, honesty. *Shakespeare. Henry VIII.*

My train are men of choice and rarest parts,  
 That all particulars of duty know;  
 And in the most exact regard support  
 The *worship* of their names. *Id. King Lear.*

Dinner is on table; my father desires your *worship's* company. *Id. Merry Wives of Windsor.*

This is *worshipful* society,  
 And fits the mounting spirit like myself. *Shakespeare.*

'Tis not your inky brows, your black silk hair,  
 Your bugle eyeballs, nor your cheek of cream,  
 That can entame my spirits to your *worship*. *Id.*

What art thou, thou idol ceremony?  
 What kind of God art thou, that sufferest more  
 Of mortal griefs than do thy *worshippers*? *Id. Henry.*

With bended knees I daily *worship* her,  
 Yet she consumes her own idolater. *Carew.*

First *worship* God; he that forgets to pray,  
 Bids not himself good-morrow, nor good-day. *T. Randolph.*

They join their vocal *worship* to the quire  
 Of creatures wanting voice. *Milton.*

The *worship* of God is an eminent part of religion,  
 and prayer is a chief part of religious *worship* : hence  
 religion is described by seeking God. *Tillotson.*

Since God hath appointed government among men,  
 it is plain that his intention was, that some kind of  
*worship* should be given from some to others. *Stillington.*

Suppose this *worshipful* idol be made, yet still it  
 wants sense and motion. *Id.*

He waved a torch aloft, and, madly vain,  
 Sought godlike *worship* from a servile train. *Dryden.*

What lands and lordships for their owner know  
 My quondam barber, but his *worship* now. *Id.*

By sanctifying the seventh day after they had laboured six, they avowed themselves *worshippers* of that only God who created heaven and earth. *Nelson.*

When old age comes upon him, it comes alone,  
 bringing no other evil with it; but when it comes to  
 wait upon a great and *worshipful* sinner, who for many  
 years has ate well and done ill, it is attended with a  
 long train of rheums. *South.*

There was a voyage of the Egyptians under Osiris  
 up the Danube; from them the Sævi had their *worship*  
 of Isis. *Arbuthnot.*

Against your *worship* when had S—k writ?  
 Or P—ge poured forth the torrent of his wit? *Pope.*

**WORSHIP** OF GOD (*cultus Dei*) amounts to the same with what we otherwise call religion. This worship consists in paying a due respect, veneration, and homage to the Deity, under a certain expectation of reward. And this internal respect, &c., is to be shown and testified by external acts, &c.



prayers, sacrifices, thanksgivings, &c. The Quietists, and some other mystic divines, set aside not only all use of external worship, but even the consideration of rewards and punishments. Yet even the heathens had a notion that God did not require us to serve him for nought: 'Dii quamobrem colendi sint,' says Cicero, 'non intelligo, nullo nec accepto ab illis nec sperato bono.' The school divines divide worship into divers kinds; viz. latria, that rendered to God; and idolatria, that rendered to idols or images. To which the Romanists add dulia, that rendered to saints; and hyperdulia, that rendered to the Virgin. Some theological writers have observed that the Greek word προσκυνω, to worship, is not descriptive only of the honor which is appropriated to God, but is indifferently used to signify the honor and respect which are paid to superiors of all kinds in heaven or on earth. Accordingly, they have distinguished between civil and religious worship. That it is the duty of man to worship his Maker has been sufficiently proved elsewhere. It is not indeed easily to be conceived how any one who has tolerably just notions of the attributes and providence of God, can possibly neglect the duty of private worship; and, though divines are not agreed upon the point whether public worship be really enjoined in that system which is called the religion of nature, yet it is most expressly commanded by the religion of Christ, and will be regularly performed by every one who reflects on its great utility.—As the illiterate vulgar cannot form to themselves correct notions of the divine providence, and attributes, it is obvious that, without the institution of public worship they would never think of worshipping God at all, unless perhaps occasionally, when under the pressure of some severe calamity; but occasional worship, the offspring of compulsion, could have little of the resigned spirit of true devotion. Ignorant, however, as the lowest of the vulgar are, and necessarily must be, it cannot be denied that in most Christian countries, perhaps in all, they are more accurately acquainted with the first principles of religion, and the laws of morality, than even the leaders of barbarous nations. This superiority is doubtless owing in some measure to their access to the sacred Scriptures, but much more, we are persuaded, to the instruction which they receive in the assemblies which they frequent for public worship. If this be admitted, public worship may be easily proved to be the duty of every individual of the community: for were those, who may be supposed to stand in no need either of the contagion of society to kindle their own devotion, or of the preaching of a clergyman to instruct them in the doctrines and precepts of the gospel, to 'forsake, on these accounts, the assembling themselves together, as the manner of some is,' religious assemblies and public worship would very quickly fall into universal disuse. Man is an animal prone to imitation; and every order in society is ambitious of treading in the footsteps of the order immediately above it. Were the wise and the good, therefore, permitted to absent themselves from the assemblies instituted for the public worship of the Creator and Redeemer of the world, others would quickly follow their example; impelled to it not only by this universal propensity, but by the additional motive of wishing to appear both to the world and to themselves as wise and as good as their privileged neighbours. The consequence is obvious: one man would stay

from church with the serious intention perhaps of employing the Lord's day in private devotion and religious study; another, following his example, would absent himself upon the same pretence, but would in reality waste the day in dozing indolence or in secret sensuality. For these and other reasons, which might be easily assigned, no sincere Christian will think himself at liberty to dispute a practice enjoined by the inspired preachers of his religion, coeval with the institution, and retained by every sect into which it has since been unhappily divided.

As Christian worship consists of prayers and praises, it has been a matter of some debate whether it is most properly performed by preconcerted forms or liturgies, or by extemporaneous addresses to the Almighty. Both these modes have their advantages and disadvantages; and by the sacred writers neither of them is prescribed in opposition to the other. The advantages of a liturgy are, that it prevents absurd, extravagant, or impious addresses to God, which the folly or enthusiasm of individuals must always be in danger of producing; it gives the congregation an opportunity of joining in the prayers which are put up for them, which they cannot possibly do in a series of extemporaneous petitions, since, before they can assent to any one of these and make it their own, their attention is necessarily called away to that which succeeds it; and it relieves the clergyman from the labor of composition, which seems incompatible with that fervor which constitutes the spirit of devotion. The disadvantages of a fixed liturgy, which are the recommendations of extemporary prayer, are principally two. The forms composed in one age must by the unavoidable change of language, circumstances, and opinions, become in some degree unfit for another; and the perpetual repetition of the same form of words is very apt to produce inattentive lassitude in the congregation. Would the clergy of the church of England take that liberty which is allowed them, in the bidding prayer before sermon, perhaps the service of that church would unite in itself all the advantages both of liturgic and extemporary worship. We have only to add, on this subject, that public prayers, whether precomposed or not, ought to be compendious; that they ought to express just conceptions of the divine attributes; recite such wants as the congregation are likely to feel, and no other; that they ought to contain as few controverted propositions as possible; and that, if it can be done without offence, the pompous style of the state should be laid aside in our prayers for the king and all that are in authority; because, in every act which carries the mind to God, human greatness must be annihilated.

WORST, *adj.*, *n. s.*, & *v. a.* The superlative of bad, formed from worse: bad, worse, worst. Most bad; most ill: the most calamitous or wicked state; utmost degree of ill: to reduce to that state; defeat.

Who is 't can say I'm at the worst?

I'm worse than e'er I was,

And worse I may be yet: the worst is not

So long as we can say, this is the worst. *Shaksp.*

The case will be no worse than where two duellists enter the field, where the worsted party hath his sword given him again without further hurt. *Suckling.*

That you may be armed against the worst in this unhappy state of affairs in our distressed country, I send you these considerations on the nature and immortality of the sou. *Digby.*



The bear was in a greater fright,  
Beat down and *worsted* by the knight. *Hudibras.*  
Happy the man, and happy he alone,  
He who can call to-day his own:  
He who secure within can say,  
To-morrow do thy *worst*, for I have lived to-day.

*Dryden.*

It is downright madness to contend where we are sure  
to be *worsted*. *L'Estrange.*

The pain that any one actually feels is still of all  
other the *worst*; and it is with anguish they cry out.

*Locke.*

Sir Roger gets into the frontiers of his estate before  
he beats about in search of a hare, on purpose to spare  
his own fields, where he is always sure of finding di-  
version when the *worst* comes to the *worst*. *Addison.*

**WORSTED**, *n. s.* From *Worsted*, a town in  
Norfolk famous for the woollen manufacture.  
Woollen yarn; wool spun.

A base, proud, shallow, beggarly, three suited,  
hundred pound, filthy, *worsted*-stocking knave. *Shaks.*

There Ridpath, Roger cudgel'd might ye view;  
The very *worsted* still looked black and blue. *Pope.*

**WORT**, *n. s.* Sax. *weort*; Belg. *wort*. Orig-  
inally a general name for an herb; as liverwort,  
spleenwort. A plant of the cabbage kind; new  
beer unfermented, or in the act of fermentation.

If in the *wort* of beer, while it worketh, before it be  
tunned, the burrage be often changed with fresh, it will  
make a sovereign drink for melancholy. *Bacon.*

**WORTH**, or **WURTH**, *v. n.* Sax. *weorðan*. To  
be: retained in *wo worth*, or *wurth*; *wo be*.

*Wo worth* the man

That first did teach the cursed steel to bite  
In his own flesh, and make way to the living sp'rit.

*Spenser.*

**WORTH**, *n. s. & adj.*

**WORTHILY**, *adv.*

**WORTHINESS**, *n. s.*

**WORTHLESS**, *adj.*

**WORTHLESSNESS**, *n. s.*

**WORTHY**, *adj., n. s., & v. a.*

*of*: *worthy* is suitably; justly: the noun substantive  
corresponding: *worthless* and *worthlessness*,  
without virtue or worth; want of excellence or dig-  
nity: *worthy*, deserving; valuable; noble; equal;  
suitable: a man of valuable qualities, and particu-  
larly of valor: to *worth* is to render *worthy*; *exalt*:  
(obsolete).

If the wicked man be *worthy* to be beaten, the judge  
shall cause him to be beaten. *Deut. xxv. 2.*

Although *worth* nothing, he shall be proffered the  
best endowed and most beautiful virgin of their island.

*Sandys.*

She determined never to marry any but him whom  
she thought *worthy* of her, and that was one in whom  
all *worthinesses* were harboured. *Sidney.*

If the best things have the perfectest and best opera-  
tions, it will follow, that seeing man is the *worthiest*  
creature on earth, and every society of men more *worthy*  
than any man, and of society, that most excellent which  
we call the church. *Hooker.*

Your clemency will take in good *worth* the offer of  
these my simple and mean labours. *Id.*

Further I will not flatter you,  
That all I see in you is *worthy* love,  
Than this; that nothing do I see in you  
That should merit hate.

*Shakspeare.*

Thou art *worthy* of the sway,  
To whom the heavens in thy nativity  
Adjured an olive branch and laurel crown.

*Id.*

Women will love her that she is a woman,  
More *worth* than any man; men that she is  
The rarest of all women.

*Id.*

He conjunct tripped me behind;  
And put upon him such a deal of man  
That *worthied* him; got praises of the king,  
For him attempting who was self-subdued. *Id.*

A little time will melt her frozen thoughts,  
And *worthless* Valentine shall be forgot. *Id.*

The king is present; if 't be known to him  
That I gainsay my deed, how may he wound,  
And *worthily*, my falsehood? *Id.*

A war upon the Turks is more *worthy* than upon any  
other Gentiles, in point of religion and honour; though  
hope of success might invite some other choice. *Bacon.*

Having from these sucked all they had of *worth*,  
And brought home that faith which you carried forth,  
I thoroughly love. *Donne.*

It were a matter of more trouble than necessity to re-  
peat, in this quarrel, what has been alledged by the  
*worthies* of our church. *Holyday.*

The castle appeared to be a place *worth* the keeping,  
and capable to be made secure against a good army.

*Clarendon.*

Whatsoever

Is *worthy* of their love is *worth* their anger. *Denham.*  
Flowers *worthy* of Paradise. *Milton.*

Haste, hither, Eve, and *worth* thy sight behold  
Eastward among those trees, what glorious shape  
Comes this way moving. *Id.*

Happier thou mayst be, *worthier* canst not be. *Id.*

What is *worth* in any thing,  
But so much money as 'twill bring? *Hudibras.*

On Laura's lap you lay,  
Chiding the *worthless* crowd away. *Roscommon.*

But that mine own *worthlessness* spoils the conceit, I  
could think our own company parallel to the seven wise  
men of Greece. *More*

A nymph of your own train  
Gives us your character in such a strain,  
As none but she, who in that court did dwell,  
Could know such *worth*, or *worth* describe so well.

*Waller.*

My *worthy* wife our arms mislaid,  
And from beneath my head my sword conveyed;  
The door unlatched, and with repeated calls  
Invites her former lord within my walls. *Dryden.*

You *worthily* succeed, not only to the honours of your  
ancestors, but also to their virtues. *Id.*

For this day's palm, and for thy former acts,  
Thou, Arthur, hast acquired a future fame,  
And of three Christian *worthies* art the first. *Id.*

The divine original of our souls hath little influence  
upon us to engage us to walk *worthily* of our extraction,  
and to do nothing that is base. *Roy.*

A notable account is given us by the apostle of this  
windy insignificant charity of the will, and of the  
*worthlessness* of it, not enlivened by deeds. *South.*

Take a man, possessed with a strong desire of any  
thing, and the *worth* and excellency of that thing ap-  
pears much greater than when that desire is quite ex-  
tinguished. *Id.*

It is *worth* while to consider how admirably he has  
turned the course of his narration, and made his hus-  
bandman concerned even in what relates to the battle.

*Addison.*

Am I then doomed to fall  
By a boy's hand, and for a *worthless* woman? *Id.*

A common marcasite shall have the colour of gold  
exactly: and yet upon trial yield nothing of *worth* but  
vitriol and sulphur. *Woodward.*

*Worth* makes the man, and want of it the fellow.

*Pope.*

Many things are *worth* enquiry to one man, which  
are not so to another. *Watts.*

If your arguments produce no conviction, they are  
*worth* nothing to me. *Beattie.*

**WORTHING**, a hamlet in the parish of Broad-  
water, hundred of Brightford, rape of Bramber

Sussex, eleven miles east of Brighton, and fifty-six from London, on the sea-coast. This place, in a short space of time, has acquired many handsome buildings, several of them sufficiently extensive and elegant to accommodate the first families in the kingdom. It is much resorted to during the bathing season, and there is a facility of bathing here in the most stormy weather, with a level extent of sand for a length of ten miles. A fishery is carried on for mackerel in the spring, and in the autumn for herrings. It has a convenient, daily market, and a neat little theatre.

WORTLE, or parsley. See *APIUM*.

WOT, *v. n.* Sax. *piran*: whence *weet*, to know; of which the *preterite* was *wot*, *knew*. See *WIT*. To know; be aware. Obsolete.

The salve of reformation they mightily call for, but where and what the sores are which need it, as they wot full little, so they think not greatly material to search.

Hooker.

Well I *wot*, compared to all the rest  
Of each degree, that beggar's life is best.

Spenser.

More water glideth by the mill

Than *wots* the miller of.

Shakspeare.

WOTTON (Sir Henry), an eminent writer, the son of Thomas Wotton, esq.; born in 1568. He studied at New College, Oxford, and Queen's College, where he made a great progress in logic and philosophy; wrote a tragedy for the use of that college, called *Tancred*; and afterwards received the degree of M. A. After this he travelled into France, Germany, and Italy; and, having spent nine years abroad, he returned and became secretary to Robert earl of Essex, with whom he continued till that earl was apprehended for high treason. He then retired to Florence, where he became known to the grand duke of Tuscany, who sent him privately with letters to James VI. king of Scotland, under the name of Octavio Baldi, to inform that king of a design against his life. Some months after, he went back to Florence; but, king James succeeding to the crown of England, Mr. Wotton returned home, was knighted, and sent ambassador to the republic of Venice; and afterwards was employed in many other embassies to that and other courts. He was made provost of Eton (being previously admitted into deacon's orders) in 1623, which he kept till his death, in 1639. After his decease some of his MSS. and printed tracts were published in a volume, entitled *Reliquiæ Wottonianæ*.

WOTTON (William), D. D., a very learned divine, the son of Mr. Henry Wotton, B. D., rector of Wrentham, in Suffolk, where he was born in 1666. He was educated by his father, a learned gentleman, under whom he made amazing progress. He was admitted into Catharine Hall in Cambridge before he was ten years old; when his rapid progress astonished the professors. In 1679, his thirteenth year, he took the degree of A. B. and in 1680 he was invited to London by Dr. Gilbert Burnet, who introduced him to Dr. William Lloyd, bishop of St. Asaph. In 1691 he commenced B. D., and bishop Lloyd gave him the sinecure of Llandrillo in Denbighshire. He was afterwards made chaplain to the earl of Nottingham, who made him rector of Middleton Keynes, in Bucks, and to whom he dedicated his *Reflections upon Ancient and Modern Learning*. In 1705 bishop Burnet gave him a prebend in the church of Salisbury; and in 1707 archbishop Tenison presented

him with the degree of D. D.; but in 1714 difficulties in his private fortune obliged him to retire into South Wales, where he was treated with great kindness by the gentlemen of that country; and wrote the *Memoirs of the Cathedral Churches of St. David's and Landaff*, and *Miscellaneous Discourses relating to the Traditions and Usages of the Scribes and Pharisees*; afterwards printed. He died in 1726. This great man was remarkable for his humanity and friendliness of temper. He wrote, besides the above works, 1. *A History of Rome*. 2. *A Defence of his Reflections upon Ancient and Modern Learning*. 3. *A Discourse concerning the Languages of Babel*. 4. *Advice to a young Student, with a Method of Study for the first four years*; and other learned pieces.

WOVE, *v. a. & part.* } The *pret.* and *part. pass.*

WOOF, *n. s.* } of WEAVE. The woof is the set of threads that crosses the warp; the weft.

The placing of the tangible parts in length or transverse, as in the warp and the woof of textile, is more inward or more outward.

Bacon.

A vest of purple flowed,  
Iris had dipped the woof.

Milton.

To spread the pall beneath the regal chair,  
Of softest woof, is bright Alcippe's care.

Pope.

WOULD, } The *pret.* of *will*. It is

WOULD'ING, *n. s.* } generally used as an auxiliary verb with an infinitive, to which it gives the force of the subjunctive mood: was or am resolved; I wish; should wish; or wished to; am or was willing: woulding is the motive of desire; disposition or determination to do any thing. Not used.

She would give her a lesson for walking so late, that should make her keep within doors for one fortnight.

Sidney.

What wouldst thou with us?

Shakspeare.

I would this music would come.

I, this sound I better know.  
Wise men will do it without a law; I would there might be a law to restrain fools.

Bacon.

As for percolation, which belongeth to separation, trial would be made by clarifying by adhesion, with milk put into new beer, and stirred with it.

Id

Would to heaven that youth such spirit did feed

Now in my nerves, and that my joints were knit

With such a strength, as made me then held fit

To lead men with Ulysses.

Chapman.

List! I would I could hear more.

Ben Jonson.

This is yet the outward, fairest side  
Of our design: within rests more of fear

Than, my most worthy lords, I would there were.

Daniel.

It will be every man's interest to join good performances to spiritual purposes; to subdue the exorbitancies of the flesh, as well as to continue the wouldings of the spirit.

Hammond.

Would thou hadst hearkened to my words, and stayed

With me, as I besought thee.  
There are several who would, or at least pretend they would, bear much in their own business, who will bear nothing at all.

Kettelwell.

And would to heaven the storm you felt would bring  
On Carthaginian coasts your wandering king.

Dryden.

It will be needless to enumerate all the simple ideas belonging to each sense; nor indeed is it possible, if we would; there being a great many more of them belonging to most of the senses than we have names for.

Locke.

If God's providence did not so order it, cheats would daily be committed, which would jumble private men out of their rights, and unhinge states.

Ray.



WOUND, *n. s. & v. a.* } Sax. *puṇð*; Belgic  
WOUND'Y, *adj.* } *wonde*. A hurt given  
by violence : to hurt by violence : woundy seems  
to mean painful ; grievous.

I kill, and I make alive ; I wound, and I heal.

*Deuteronomy.*

He was wounded for our transgressions, he was  
bruised for our iniquities.

*Isaiah.*

The untainted woundings of a father's curse  
Pierce every sense about thee.

*Shakespeare.*

Now shew the wound mine eyes have made in thee ;  
Scratch thee but with a pin, and there remains  
Some scar of it.

*Id.*

He, stooping, opened my left side, and took  
From thence a rib : wide was the wound,  
But suddenly filled up and healed.

*Milton.*

Heroes of old, when wounded, shelter sought.

*Dryden.*

These stockings of Susan's cost a woundy deal of pains  
pulling up.

*Gay.*

The savages wounded Atkins, and slew his followers.

*Robinson Crusoe.*

Not poison, but a wound, the soldier slew.

*Roscoe.*

They feel the smart and see the scar of their former  
wounds ; and know that they must be made a sacrifice  
to the least attempt towards a change.

*Swift.*

WOUNDER. From wound. One that wounds.

WOW, a fortified town of Hindostan, in the pro-  
vince of Gujerat, and district of Neyer, of which it  
may be considered as the capital. It was formerly  
governed by a female called the Ranny, whose ter-  
ritories were very considerable. It is still a place  
of consequence, and the residence of 1000 Rajpoot  
families. It is subject to the chief of Theraud.  
Long. 71° 23' E., lat. 24° 11' N.

WRACK, *n. s. & v. a.* Sax. *præcce*, a wretch ;  
Belg. *wrack*. Ruin ; destruction of a ship : to  
ruin ; torture ; torment. The poets use *wrack* or  
wreck indifferently. See WRECK.

With use of evil, growing more and more evil, they  
took delight in slaughter, and pleased themselves in  
making others *wrack* the effect of their power.

*Sidney.*

Merab rejoiced in her *wracked* lover's pain,  
And fortified her virtue with disdain.

*Cowley.*

Each on his rock transfixed, the sport and prey  
Of *wracking* whirlwinds.

*Milton.*

Pharaoh's and Joseph's dreams are oftentimes  
*wracked* beyond their symbolization.

*Browne.*

Now with full sails into the port I move,  
And safely can unlade my breast of love,  
Quiet and calm : why should I then go back,  
To tempt the second hazard of a *wrack* ?

*Dryden.*

WRANG'LE, *v. n. & n. s.* } From Belg. *wrang-*  
WRANG'LE, *n. s.* } *heseur*, Minshew ;  
wrong, Skinner. To dispute peevishly or per-  
versely ; to alternate ; squabble : a dispute of this  
kind ; a disputant : a peevish quarrelsome man.

Yes, for a score of kingdoms you should wrangle ;  
And I should call it fair play.

*Shakespeare. Tempest.*

Tell him h'ath made a match with such a wrangler,  
That all the courts of France will be disturbed  
With chases.

*Id. Henry V.*

Lord, the house and family are thine,  
Though some of them repine ;  
Turn out these wranglers which defile thy seat.

For where thou dwellest all is neat.

*Herbert.*

How wounding a spectacle is it to see those who  
were by Christ designed for fishers of men, picking up  
shells on the shore, and unmanly wrangling about them  
too !

*Decay of Piety.*

In incoherent ideas we impose on ourselves, and  
*evangle* with others.

*Locke.*

His great application to the law had not infected his

temper with any thing litigious ; he did not know  
what it was to wrangle on indifferent points.

*Addison's Freeholder.*

He advises therefore to set aside all logical wrang-  
lings, and to produce the testimonies of the antients.

*Waterland.*

Filled with the sense of age, the fire of youth,  
A scorn of wrangling, yet a zeal for truth.

*Pope.*

The giving the priest a right to the tithe would pro-  
duce law-suits and wrangles.

*Swift.*

The captious turn of an habitual wrangler deadens  
the understanding, sours the temper, and hardens the  
heart.

*Beattie.*

WRANGLE (Charles Gustavus), marshal and  
constable of Sweden, a celebrated naval and mili-  
tary commander. He defeated the Danish fleet in  
1644 ; the imperial army near Augsburg in 1648,  
and the Dutch fleet in 1658. See SWEDEN. He  
died in 1676.

WRANGLER, in literature, is a title of honor be-  
stowed on students in the university of Cambridge,  
who stand in the highest class, especially in mathe-  
matical knowledge, at the public examination, for  
the first degree (or bachelor) in arts ; the second  
consists of senior optimes : the third of junior op-  
times ; and the fourth and last of the *οι πολλοι*.

WRAP, *v. a.* } *Pres. and part. pass.* wrap-  
WRAP'PER, *n. s.* } ped or wrapt. Sax. *hpeon-*  
pian, to turn ; Dan. *wrefler* ; Goth. *reifa*. To roll  
together ; complicate ; involve ; comprise ; trans-  
port : taking up, intensively : a wrapper is a per-  
son or thing that wraps.

The sword made bright is *wrapt up* for the slaughter

*Ezekiel.*

Peter seeth the napkin that was about his head  
*wrapped* together by itself.

*John xx. 7.*

This said, he took his mantle's foremost part,  
He 'gan the same together fold and wrap.

*Fairfax.*

Wise poets that *wrap* truth in tales,  
Knew her themselves through all her veils.

*Carew.*

Much more the reverend sire prepared to say,  
*Wrapped* with his joy, how the two armies lay.

*Cowley.*

Their vigilance to elude, I *wrapt* in mist  
Of midnight vapour, glide obscure.

*Milton.*

*Wrapt up* in silent fear he lies.

*Waller.*

Nilus opens wide  
His arms and ample bosom to the tide,  
And spreads his mantle o'er the winding coast,  
In which he *wraps* his queen, and hides the flying host.

*Dryden.*

My arms were pressed to my sides, and my legs  
closed together by so many *wrappers* that I looked like  
an Egyptian mummy.

*Addison's Spectator.*

Whatever things were discovered to St. Paul, when  
he was *wrapped up* into the third heaven, all the de-  
scription he makes is that there are such things as eye  
hath not seen, ear heard, nor hath it entered into the  
heart of man to conceive.

*Locke.*

*Wrap* candles up in paper.

*Swift.*

WRASSE, in ichthyology. See LABRUS.

WRATH, *n. s.* } Sax. *præð* ; Swed. and  
WRATH'FUL, *adj.* } Dan. *wrede* ; Goth. *wrede*.  
WRATH'FULLY, *adv.* } Anger ; fury ; rage : the  
WRATH'LESS, *adj.* } derivatives correspond-

ing. I fear, lest there be debates, envyings, *wraths*, strifes

*Corinthians.*

He cried, as raging seas are wont to roar,  
When wintry storm his *wrathful* wreck doth threaten.

*Spenser.*

Thou dost the prayers of the righteous seed  
Present before the majesty divine,  
And his avenging *wrath* to clemency incline.

*Id.*

Sweet, adieu ! I'll keep my oath,  
Patiently to bear my *wrath*. *Shakspeare.*

How now ! your *wrathful* weapons drawn ! *Id.*

Gentle friends,  
Let's kill him boldly, but not *wrathfully*. *Id.*

He hoped not to escape, but shun  
The present, fearing guilty what his *wrath*  
Might suddenly inflict. *Milton.*

Before his feet so sheep and lions lay,  
Fearless and *wrathless*, while they heard him play. *Waller.*

Achilles' *mrath*, to Greece the direful spring  
Of woes unnumbered, heavenly goddess ! sing. *Pope.*

The true evangelical zeal should abound more in the  
mild and good-natured affections, than the vehement  
and *wrathful* passions. *Sprat's Sermons.*

WRATH. See ANGER, RAGE, &c.

WREAK, *v. a. & n. s.* } Old *pret.* and *part. pass.*

WREAK'FUL, *adj.* } wroke and wroken, now

WREAK'LESS. } wreaked. Sax. *præcan* ;

Belg. *wrecken* ; Teut. *recken*. To revenge ; execute  
a violent design : used for *reck*, corruptly : revenge ;  
passion : the adjectives correspond.

Him all that while occasion did provoke  
Against Pyrocles, and new matter framed  
Upon the old, him stirring to be *wroke*  
Of his late wrongs. *Spenser.*

Fortune, mine avowed foe,  
Her *wrathful wrecks* themselves do now ally. *Id.*

So flies the *wreakless* shepherd from the wolf ;  
So first the harmless flock doth yield his fleece,  
And next his throat unto the butcher's knife. *Shaksp.*

What and if  
His sorrows have so overwhelmed his wits,  
Shall we be thus afflicted in his *wrecks*,  
His fits, his frenzy, and his bitterness ? *Id.*

My master is of churlish disposition,  
And little *wrecks* to find the way to heaven  
By doing deeds of hospitality. *Id.*

Some ills behind, rude swaine, for thee to heare ;  
That feared not to devour thy guests, and breake  
All laws of humanes ; Jove sends therefore *wreake*. *Chapman.*

On me let death *wreak* all his rage. *Milton.*

He left the dame,  
Resolved to spare her life, and save her shame,  
But that detested object to remove,

To *wreak* his vengeance, and to cure her love. *Dryd.*

Think how you drove him hence, a wand'ring exile,  
To distant climes ; then think what certain vengeance  
His rage may *wreak* on your unhappy orphan. *Smith.*

Her husband scoured away  
To *wreak* his hunger on the destined prey. *Pope.*

WREATH, *n. s., v. a., &c.* } Saxon *præoð*. Any

WREATH'Y, *adj.* } [*v. n.* ] thing curled or twisted ;  
a garland : to curl ; involve ; twist ; interweave ; en-  
circle ; writhe : to be interwoven or entwined :  
*wreathy* is spiral.

Two chains of pure gold, of *wreathen* work, shalt thou  
make them, and fasten the *wreathen* chains to the ouches. *Exodus xxviii.*

Longaville  
Did never sonnet for her sake compile,  
Nor ever laid his *wreathed* arms athwart  
His loving bosom, to keep down his heart. *Shaksp.*

About his neck  
A green and gilded snake had *wreathed* itself. *Id.*

The *wreath* of three was made a *wreath* of five ; to  
these three first titles of the two houses were added the  
authorities parliamentary and papal. *Bacon.*

The beard of an oat is *wreathed* at the bottom. *Id.*

He of his tortuous train  
Curled many a wanton *wreath*. *Milton.*

That which is preserved at St. Dennis, near Paris,  
bath *wreathy* spires, and cochleary turnings about,

which agreeth with the description of an unicorn's horn  
in *Ælian*. *Brovne.*

Dropped from his head, a *wreath* lay on the ground. *Roscommon.*

For thee she feeds her hair,  
And with thy winding ivy *wreathes* her lance. *Dryd.*

Let altars smok,  
And richest gums, and spice, and incense, roll  
Their fragrant *wreaths* to heaven. *Smith.*

As snakes breed in dunghills not singly, but in knots,  
so in such base noisome hearts you shall ever see pride  
and ingratitude indivisibly *wreathed* and twisted to-  
gether. *South.*

In the flowers that *wreath* the sparkling bowl

Fell adders hiss, and poisonous serpents rowl. *Prior.*

Impatient of the wound,  
He rolls and *wreaths* his shining body round ;

Then headlong shoots beneath the dashing tide. *Gay.*

WRECK, *n. s., v. a., & v. n.* Saxon *præcce*, a  
miserable person ; Belg. *wracke*. See WRACK.  
Destruction by sea : hence by any violence ; ruin :  
to destroy by dashing on rocks or sands ; ruin :  
suffer wreck : corruptly used for *wreak*.

Fair be ye sure ; but hard and obstinate,  
As is a rock amidst the raging floods ;  
'Gainst which a ship, of succour desolate,  
Doth suffer *wreck* both of herself and goods. *Spenser.*

Have there been any more such tempests, where in  
she hath wretchedly been *wrecked* ? *Id.*

Whether he was  
Combined with Norway, or did line the rebel  
With hidden help and 'vantage ; or that with both  
He laboured in his country's *wreck*, I know not. *Shakspeare.*

A pilot's thumb,  
*Wrecked* as homeward he did come. *Id.*

Like those that see their *wreck*  
Even on the rocks of death ; and yet they strain  
That death may not them idly find t' attend  
To their uncertain task, but work to meet their end. *Daniel.*

Not only Paradise,  
In this commotion, but the starry cope  
Had gone to *wreck*. *Milton.*

Rocks whereon greatest men have often *wrecked*. *Id.*

The soul shall flourish in immortal youth,  
Unhurt amidst the war of elements,  
The *wrecks* of matter, and the crush of worlds. *Addison.*

I faint ! I die ! the goddess cried :  
O cruel, couldst thou find none other  
To *wreck* thy spleen on, parricide ?

Like Nero, thou hast slain thy mother. *Prior.*

Think not that flying fame reports my fate ;  
I present, I appear, and my own *wreck* relate. *Dryd.*

WRECK, or SHIPWRECK, in law. By the ancient  
common law, where any ship was lost at sea, and  
the goods or cargo were thrown upon the land, these  
goods, so wrecked, were judged to belong to the  
king ; for it was held that, by the loss of the ship,  
all property was gone out of the original owner.  
But this was undoubtedly neither consonant to  
reason nor humanity. Wherefore it was first or-  
dained by king Henry I. that if any person es-  
caped alive out of the ship, it should be no wreck ;  
and afterwards king Henry II. declared that, if any  
ship should be distressed, and either man or beast  
should escape or be found therein alive, the goods  
should remain to the owners, if they claimed them  
within three months. This was again confirmed with  
improvements by king Richard I. And the law, as  
laid down by Bracton in the reign of Henry III.,  
seems still to have improved in its equity. For  
then, if not only a dog, for instance, escaped, by  
which the owner might be discovered, but if any



certain mark were set on the goods, by which they might be known again, it was held to be no wreck. It is now held that not only if any live thing escape, but if proof can be made of the property of any of the goods or lading which come to shore, they shall not be forfeited as wreck. To constitute a legal wreck, the goods must come to land. If they continue at sea, the law distinguishes them by the barbarous and uncouth appellations of jetsam, or jetsom, flotsam or flotsom, and ligam or lagan. These are also the king's, if no owner appears to claim them; but, if any owner appears, he is entitled to recover the possession. Wrecks, in their legal acceptation, are at present not very frequent; for if any goods come to land, it rarely happens, since the improvement of commerce, navigation, and correspondence, that the owner is not able to assert his property within the year and day limited by law. And in order to preserve this property entire for him, and if possible to prevent wrecks at all, our laws have made many very humane regulations. For by stat. 27 Edw. III. c. 13, if any ship be lost on the shore, and the goods come to land (which cannot, says the statute, be called wreck) they shall be presently delivered to the merchants, paying only a reasonable reward to those that saved and preserved them, which is entitled salvage. Also by the common law, if any person (other than the sheriff) take any goods so cast on shore, which are not legal wreck, the owners might have a commission to enquire and find them out, and compel them to make restitution. And by 12 Ann. stat. 2, c. 18, confirmed by 4 Geo. I. c. 12, to assist the distressed, and prevent the scandalous illegal practices on some of our sea-coasts, it is enacted that all head officers, and others of towns near the sea, shall, upon application made to them, summon as many hands as are necessary, and send them to the relief of any ship in distress, on forfeiture of £100; and, in case of assistance given, salvage shall be paid by the owners, to be assessed by three neighbouring justices. All persons that secrete any goods shall forfeit their treble value; and if they wilfully do any act whereby the ship is lost or destroyed, by making holes in her, stealing her pumps, or otherwise, they are guilty of felony without benefit of clergy. Lastly, by stat. 26 Geo. II. c. 19, plundering any vessel, either in distress or wrecked, and whether any living creature be on board or not (for, whether wreck or otherwise, it is clearly not the property of the populace), such plundering or preventing the escape of any person that endeavours to save his life, or wounding him with intent to destroy him, or putting out false lights in order to bring any vessel into danger, are all declared to be capital felonies; in like manner as the destroying of trees, steeples, or other stated sea marks, is punished by stat. 8 Eliz. c. 13, with a forfeiture of £100, or outlawry. Moreover, by stat. Geo. II., pilfering any goods cast ashore is declared to be petty larceny; and many other salutary regulations are made, for the more effectually preserving ships of any nation in distress. By the civil law, to destroy persons shipwrecked, or prevent their saving the ship, is capital. And to steal even a plank, from a vessel in distress or wrecked, makes the party liable to answer for the whole ship and cargo. The laws also of the Wisigoths, and the most early Neapolitan constitutions, punished with the utmost severity all those who neglected to assist any ship in distress, or plundered any goods cast on shore.

WREN, *n. s.* Sax. *ppenna*. A small bird.

The poor *wren*,

The most diminutive of birds, will fight,

Her young ones in her nest, against the owl. *Shaksp.*

All ages have conceived that the *wren* is the least of birds; yet the discoveries of America have shewed us one far less.

*Browne.*

WREN, in ornithology. See *MOTACILLA*.

WREN (Sir Christopher), was the son of Christopher Wren, dean of Windsor, and was born in 1632. He studied at Wadham College in Oxford; where he took the degree of A. M. in 1653, and was chosen fellow of All Souls College. In 1657 he was made professor of astronomy at Gresham College, London; which he resigned in 1660, on his being chosen to the Savilian professorship of astronomy in Oxford; he was in 1658 created LL. D., and in 1663 was elected F. R. S. He was one of the commissioners for the reparation of St. Paul's; and in 1665 travelled into France, to examine the most beautiful edifices there, when he made many curious observations. At his return to England, he drew a noble plan for rebuilding the city of London after the fire, which he presented to parliament; and upon the decease of Sir John Denham, in 1668, was made surveyor-general of the king's works; and from that time had the direction of a great number of public edifices, by which he acquired the highest reputation. He built the magnificent theatre at Oxford, St. Paul's cathedral, the churches of St. Stephen Walbrook, and St. Mary-le-Bow, the Monument, the modern part of the palace of Hampton Court, Chelsea College, one of the wings of Greenwich Hospital, and many other beautiful edifices. He was president of the Royal Society, one of the commissioners of Chelsea College, and twice M. P., first for Plymouth in Devonshire, and then for Melcomb Regis. He died in 1723, and was interred in the vault under St. Paul's. This great man also distinguished himself by many curious inventions and discoveries in natural philosophy. He contrived an instrument for measuring the quantity of rain that falls on any space of land for a year; he invented many ways of making astronomical observations more accurate and easy; and was the first author of the anatomical experiment of injecting liquors into the veins of animals, &c. He translated into Latin Mr. Oughtred's *Horologiographica Geometrica*; and wrote a *Survey of the Cathedral Church of Salisbury*, and other pieces. After his death his posthumous works and draughts were published by his son.

WRENCH, *v. a. & n. s.* Sax. *ppingan*; Belg. *wringen*. To pull or twist by violence; wrest; to force; sprain: a violent pull; twist or sprain.

Wrench his sword from him.

*Shakspere.*

He resolved to make his profit of this business of Britain, as a quarrel for war; and that of Naples as a *wrench* and mean for peace.

*Bacon.*

Sing the Parthian, when transfixed he lies,  
Wrenching the Roman javelin from his thighs.

*Dryden.*

Some small part of the foot being injured by a *wrench*, the whole leg thereby loses its strength.

*Locke.*

Struggling to get loose, I broke the strings, and *wrenched* out the pegs that fastened my arm to the ground.

*Swift.*

WREST, *v. a. & n. s.* } Saxon *ppæpan*. To  
WRESTLE, *v. n.* } twist by violence; to  
WRESTLER, *n. s.* } extort or distort by



writhing or force: distortion; violence; force: to wrestle is to struggle against being twisted from a standing posture; contend; taking *with*: the noun substantive corresponding.

Adown he kest it with so puissant *wrest*,  
That back again it did aloft rebound,  
And gave against his mother earth a groneful sound.

Spenser.

So far to extend their speeches is to *wrest* them against their meaning.

Hooker.

To wring this sentence, to *wrest* thereby out of men's hands the knowledge of God's doctrine, is without all reason.

Ascham.

If ever he goes alone again, I'll never *wrestle* for prize more.

Shakespeare.

*Wrest* once the law to your authority;

To do a great right, do a little wrong.

Id.

James knew not how to *wrestle* with desperate contingencies, and so abhorred to be entangled in such.

Clarendon.

When the young *wrestlers* at their sport grew warm,  
Old Milo wept, to see his naked arm.

Denham.

To what wretched state reserved,  
Better end here unborn! Why is life given,  
To be thus *wrested* from us?

Milton.

So earnest with thy God, can no new care,  
No sense of danger, interrupt thy prayer?

The sacred *wrestler*, till a blessing given,  
Quits not his hold, but halting conquers heaven.

Waller.

To play or *wrestle* well, it should be used with those that do it better.

Temple.

Two *wrestlers* help to pull each other down. Dryden.  
O prince, I blush to think what I have said;

But fate has *wrested* the confession from me.

Addison.

Another, by a fall in *wrestling*, started the end of the clavicle from the sternon.

Wiseman.

None in the leap spring with so strong a bound,  
Or firmer in the *wrestling* press the ground.

Pope.

WRESTLING, a kind of combat or engagement between two persons unarmed, body to body, to prove their strength and dexterity, and try which can throw his opponent to the ground. Wrestling is an exercise of very great antiquity and fame. It was in use in the heroic age. It continued a long time in the highest repute, and had considerable rewards and honors assigned to it at the Olympic games. Lycurgus ordered the Spartan maids to wrestle in public quite naked, to break off their too much delicacy and niceness, to make them appear more robust, and to familiarise the people, &c., to such nudities.

WRETCH, *n. s.*WRETCH'ED, *adj.*WRETCH'EDLY, *adv.*WRETCH'EDNESS, *n. s.*WRETCH'LESS, *adj.*WRETCH'LESSNESS, *n. s.*

WRETCH, *n. s.* } Saxon *pnecca*. A  
miserable mortal; a  
worthless creature;  
used in pity and  
contempt: the adjective,  
adverb, and noun sub-  
stantive following correspond: *wretchless* was  
originally written for *reckless*, i. e. careless; heed-  
less: the noun substantive corresponds.

The devil drives them into desperation, or into  
*wretchlessness* of unclean living.

Common Prayer.

Base-minded *wretches*! are your thoughts so deeply  
bemoined in the trade of ordinary worldlings, as, for  
respect of gain some paultry wool may yield you, to  
let so much time pass without knowing perfectly her  
estate?

Sidney.

An adventure worthy to be remembered for the un-  
used examples therein, as well of true natural goodness  
as of *wretched* ungratefulness.

Id.

He 'gan enquire

What hard mishap him brought to such distress,  
And made that caitiff's thrall the thrall of *wretchedness*.

Spenser.

These we should judge to be most miserable, but that  
a *wretcheder* sort there are, on whom whereas nature  
hath bestowed ripe capacity, their evil disposition se-  
riously goeth about therewith to apprehend God, as  
being not God.

Hooker.

The butcher takes away the calf,  
And binds the *wretch*, and beats it when it strives.

Shakespeare.

Excellent *wretch*!

Id.

I love not to see *wretchedness* o'ercharged,  
And duty in his service perishing.

Id.

When soon away the wasp doth go:

Poor *wretch* was never frightened so;

He thought his wings were much too slow,

O'erjoyed they so were parted.

Dryden.

Title of honour, worth and virtue's right,

Should not be given to a *wretch* so vile.

Daniel.

For any man to put off his present repentance, on  
contemplation of a possibility that his latter repentance  
may serve the turn, is the most *wretchless* presump-  
tion, and hath no promise of mercy annexed to it.

Hammond.

From these two wars, so *wretchedly* entered into, the  
duke's ruin took its date.

Clarendon.

Affected noise is the most *wretched* thing

That to contempt can empty scribblers bring.

Roscommon.

Why dost thou drive me

To range all o'er a waste and barren place,

To find a friend? The *wretched* have no friends.

Dryden.

She joys to touch the captive in her net,

And drags the little *wretch* in triumph home.

Id.

When they are gone, a company of starved hungry  
*wretches* shall take their places.

L'Estrange.

When such little shuffling arts come once to be  
ripped up, and laid open, how poorly and *wretchedly*  
must that man sneak who finds himself guilty and  
baffled too!

South.

If persons of so circumspect a piety have been thus  
overtaken, what security can there be for our *wretchless*  
oscitancy?

Government of the Tongue.

Illustrious *wretch*! repine not, nor reply;

View not what heaven ordains with reason's eye;

For bright the object is, the distance is too high.

Prior.

WREXHAM, a borough town in Wrexham  
hundred, Denbighshire, ten miles south of Chester,  
and 188 north-west of London; it consists of two  
townships, Wrexham-Abbots and Wrexham-Regis.  
It is a very fertile and pleasant situation, adjoining  
the vale royal of Cheshire. The church is an ele-  
gant structure, equal in point of beauty to some of  
our cathedrals; it was collegiate before the reign  
of Henry VII., when the present edifice was  
erected on the site of the old one, which was de-  
stroyed by fire. Here are two large meeting-  
houses, in one of which the service is performed  
in Welsh one part of the day, and in English the  
other. It has also a neat and convenient town-hall,  
and a well endowed free-school. Wrexham is a  
great mart for flannel. In the vicinity are several  
manufactories of warlike instruments, particularly  
a large cannon foundry. Near Wrexham are still  
some remains of the famous dyke thrown up by  
Offa, king of Mercia, to prevent the incursions of  
the Welsh. Markets on Thursday and Monday.

WRIG'GLE, *v. n. & v. a.* } Sax. *ppigan*; Belg.WRIG'GLETAIL, *n. s.* }

} *wriggelen*. To move  
to and fro with short motions; quaver awkwardly:  
twist insinuate by shifts: a wriggletail is one who  
wriggles.

If sheep or thy lamb fall a *wriggling* with tail,  
Go by-and-by search it, whiles help may prevail.

Tusser.



WRIGHT, *n. s.* Sax. *ppihtra, pyhta*. A workman; an artificer; a maker.

WRIGHT, Joseph, a celebrated English painter, usually styled *Wright of Derby*, was born in that town, in 1734. In 1751, he was placed under Hudson, the most celebrated portrait-painter of the day, though of very moderate talents. He then visited Italy, where he made great advances in his profession, and, in 1755, returned to England. Having resided first at Bath, but afterwards at Derby, employed in portrait painting, at a mature age, he again visited Italy, and, on his return, in 1782, was elected an associate of the royal academy. His later pictures were chiefly landscapes, which are much admired for elegance of outline and judicious management of light and shade. A large landscape, a View of the Head of Ulleswater, stands at the head of his productions of this class; while, in the historical line, the Dead Soldier is sufficient to stamp him a fine painter. He fell a victim to his unwearied attention to his profession, dying of a decline, in 1797.

WRIGHT (Abraham), a learned divine, born in 1611; who was public orator at Oxford. He published *Deliciae Deliciarum*, 1637; and a Commentary on the Psalms. He died in 1690.

WRIGHT (Edward), a celebrated English mathematician, who was educated at Cambridge, and accompanied the earl of Cumberland in his expedition to the Azores in 1589. In 1599 he published an excellent book, entitled *The Errors of Navigation Corrected*; in which he lays down the true method of making a sea chart, which now goes by the name of Mercator. He also constructed a table of meridional parts, and tables of the sun's declination. He also published, 3. *A Treatise on the Sphere*; 4. *Another on Dialling*; and, 5. *A work on Navigation, called the Haven-Finding Art*. He also suggested the first idea of the new system of weights and measures, since adopted by the French. See MEASURES. He died in 1620.

WRIGHT (Edward), an English traveller, who accompanied the earl of Macclesfield in 1720, 1721, and 1722. His *Observations* were published in 1730, in 2 vols. 8vo.

WRIGHT (John), a brave officer, born in Edinburgh castle, who signalised himself highly at the defence of St. Jean de Acre, or Ptolemais, in Syria, under Sir Sidney Smith. The French under Buonaparte had a mine ready to spring, when Wright counter-wrought it, and, at the most imminent risk of his own life, blew up and destroyed their works. He was buried under the rubbish for about two hours, but was recovered. He was afterwards taken prisoner and carried to Paris, where he died, or, as is reported, was killed by Napoleon's order, who could never forgive the disappointment he had occasioned him.

WRING, *v. a. & v. n.* } *Preter. and part. pass.*

WRINGER, *n. s.* } wringed and wrung. Sax. *ppungan*. To twist; turn with violence; force out; squeeze; press; writhe; harass; torture: to wringe with anguish: a wringer is one who wrings: particularly who wrings water from clothes.

The priest shali *wring* off his head, and burn it on the altar. *Leviticus i. 15.*

He thrust the fleece together, and *wringed* the dew out of it, a bowl full of water. *Judges vi. 38.*

To *wring* this sentence, to wrest thereby out of men's

hands the knowledge of God's doctrine, is without all reason. *Ascham.*

Lord, how dare these men thus *wring* the scriptures? *Whitgift.*

'Tis all men's office to speak patience

To those that *wring* under the load of sorrow. *Shaksp.*

One Mrs. Quickly is in the manner of his nurse, his laundress, his washer, and his *wringer*. *Id.*

The silly owner of the goods

Weeps over them, and *wrings* his hapless hands. *Id.*

He dives into the king's soul, and there scatters

Doubts, dangers, *wringing* of the conscience,

Fear and despair, and all these for his marriage. *Id.*

The king began to find where his shoe did *wring* him, and that it was his depressing the house of York that did tangle and fester the affections of his people. *Bacon.*

Apply mild detergents on pledgets of lint over it, with a compress *wring* out. *Wiseman.*

If he had not been too much grieved, and *wrung* by an uneasy and streight fortune, he would have been an excellent man of business. *Clarendon.*

Thirty spies,

Threatening cruel death, constrained the bride

To *wring* from me, and tell to them, my secret. *Milton.*

Didst thou taste but half the griefs

That *wring* my soul, thou couldst not talk thus coldly. *Addison.*

WRINKLE, *n. s. & v. a.* Sax. *ppuncle*; Belg. *wrinkled*; Danish *rinkle*. Corrugation or furrow of the skin or the face; rumple of cloth; any corrugation or roughness: to corrugate or contract into furrows.

Give me that glass, and therein will I read:

No deeper *wrinkles* yet! Hath sorrow struck

So many blows upon this face of mine,

And made no deeper wounds? *Shakespeare.*

Scorn makes us *wrinkle* up the nose, and stretch the nostrils also, at the same time drawing up the upper lip. *Bacon.*

She hath continued a virgin without any visible token, or least *wrinkle*, of old age. *Hovel.*

A keen north wind, blowing dry,

*Wrinkled* the face of deluge, as decayed

To see a beggar's brat in riches flow,

Adds not a *wrinkle* to my even brow. *Dryden.*

Here steams ascend,

That in mixed fumes the *wrinkled* nose offend. *Gay.*

Here stood Ill-nature, like an ancient maid,

Her *wrinkled* form in black and white arrayed. *Pope.*

No bloom of youth can ever blind

The cracks and *wrinkles* of your mind. *Swift.*

WRIST, *n. s.* Sax. *pyrrt*. The joint by which the hand is joined to the arm.

He took me by the *wrist*, and held me hard. *Shakespeare.*

The brawn of the arm must appear full, shadowed on one side; then shew the *wrist-bone* thereof. *Peacham.*

WRIST, in anatomy. See ANATOMY, Index.

WRIT, in law, signifies, in general, the king's precept in writing under seal, issuing out of some court, directed to the sheriff or other officer, and commanding something to be done in relation to a suit or action, or giving commission to have the same done. And, according to Fitzherbert, a writ is said to be a formal letter of the king in parchment, sealed with his seal, and directed to some judge, officer, or minister, &c., at the suit of a subject, for the cause briefly expressed, which is to be determined in the proper court according to law.

WRITS, in civil actions, are either original or judicial; original are such as are issued out of the court of chancery for the summoning of a de-



fendant to appear, and are granted before the suit is commenced, in order to begin the same; and judicial writs issue out of the court where the original is returned after the suit is begun. See PROCESS. The original writ is the foundation of the suit. See SUIT. When a person hath received an injury, he is to make application or suit to the crown, for that particular specific remedy which he is determined to pursue. As for money due on bond, an action of debt; for goods detained without force, an action of detinue or trover; or, if taken with force, an action of trespass *vi et armis*; or to try the title of lands, a writ of entry or action of trespass in ejectment; or for any consequential injury received, a special action on the case. To this end he is to sue out, or purchase by paying the stated fees, an *original* or original writ, from the court of chancery, which is the *officina justitiæ*, the shop or mint of justice, wherein all the king's writs are framed. It is a mandatory letter from the king in parchment, sealed with his great seal, and directed to the sheriff of the county wherein the injury is committed, or supposed so to be, requiring him to command the wrong-doer, or party accused, either to do justice to the complainant, or else to appear in court, and answer the accusation against him. Whatever the sheriff does in pursuance of this writ, he must return or certify to the court of common pleas, together with the writ itself; which is the foundation of the jurisdiction of that court, being the king's warrant for the judges to proceed to the determination of the cause. For it was a maxim introduced by the Normans that there should be no proceedings in common pleas before the king's justices without his original writ; because they held it unfit that those justices, being only the substitutes of the crown, should take cognizance of any thing but what was thus expressly referred to their judgment. However, in small actions below the value of 40s., which are brought in the court-baron or county-court, no royal writ is necessary; but the foundation of such suits continues to be (as in the times of the Saxons), not by original writ, but by plaint; that is, by a private memorial tendered in open court to the judge, wherein the party injured sets forth his cause of action; and the judge is bound of common right to administer justice therein, without any special mandate from the king. Now indeed even the royal writs are held to be demandable of common right, on paying the usual fees; for any delay in the granting them, or setting an unusual or exorbitant price upon them, would be a breach of *magna charta*; c. 29, *nulli vendemus, nulli negabimus, aut differemus justitiam vel rectum*. Original writs are either optional or peremptory; or, in the language of our law, they are either a *præcipe*, or a *si te fecerit securum*. The *præcipe* is in the alternative, commanding the defendant to do the thing required, or show the reason wherefore he hath not done it. The use of this writ is where something certain is demanded by the plaintiff, which is in the power of the defendant himself to perform; as, to restore the possession of land, to pay a certain liquidated debt, to perform a specific covenant, to render an account, and the like; in all which cases the writ is drawn up in the form of a *præcipe* or command, to do thus, or show cause to the contrary: giving the defendant his choice to redress the injury or stand the suit. The other species of original writs is called a *si te fecerit se-*

*curum*, from the words of the writ, which directs the sheriff to cause the defendant to appear in court, without any option given him, provided the plaintiff gives the sheriff security effectually to prosecute his claim. The writ is in use where nothing is specifically demanded, but only a satisfaction in general; to obtain which, and minister complete redress, the intervention of some judicature is necessary. Such are writs of trespass, or in the case, wherein no debt or other specific thing is sued for in certain, but only damages to be assessed by a jury. For this end the defendant is immediately called upon to appear in court, provided the plaintiff gives good security of prosecuting his claim. Both species of writs are tested, or witnessed, in the king's own name; 'witness ourself at Westminster,' or wherever the chancery may be held. The security here spoken of, to be given by the plaintiff for prosecuting his claim, is common to both writs, though it gives denomination only to the latter. The whole of it is at present become a mere matter of form; and John Doe and Richard Roe are always returned as the standing pledges for this purpose. The ancient use of them was to answer for the plaintiff, who in case he brought an action without cause, or failed in the prosecution of it when brought, was liable to an amercement from the crown for raising a false accusation; and so the form of the judgment still is. In like manner, as by the Gothic constitutions no person was permitted to lay a complaint against another nisi subscriptura aut specificatione trium testium, quod actionem vellet persequi: and as, by the laws of Sancho I. king of Portugal, damages were given against a plaintiff who prosecuted a groundless action. The day on which the defendant is ordered to appear in court, and on which the sheriff is to bring in the writ, and report how far he has obeyed it, is called the return of the writ; it being then returned by him to the king's justices at Westminster. And it is always made returnable at the distance of at least fifteen days from the date or test, that the defendant may have time to come up to Westminster, even from the most remote parts of the kingdom; and upon some day in one of the four terms, in which the court sits for the despatch of business.

WRITE, *v. a. & v. n.* } *Præc.* writ or wrote;  
 WRIT, *n. s.* } *part. pass.* written, writ,  
 WRITER. } or wrote. Sax. *sputan*,  
*apputan*; Isl. and Swed. *rita*; Goth. *rita*, *vruta*.  
 To express by means of letters: hence engrave;  
 impress; produce as an author: to perform the  
 act of writing; become an author; tell in letters;  
 send letters; compose: writ is, any thing written;  
 a process of law; legal instrument: a writer, he  
 who writes.

David wrote a letter.

2 Sam. xi.

He wrote for all the Jews concerning their freedom.

1 Esdras.

Divine Eliza, sacred empress,  
 Live she for ever, and her royal places  
 Be filled with praises of divinest wits,  
 That her eternize with their heavenly writs. *Spens.*

The church, as a witness, preacheth his mere revealed truth, by reading publicly the sacred scripture; that a second kind of preaching is the reading of holy writ. *Hooker.*

Bagdat rises out of the ruins of the old city of Babylon, so much spoken of in holy writ. *Knolles.*



Hearts, tongues, figures, scribes, bards, poets, cannot

Think, speak, cast, *write*, sing, number  
His love to Antony. *Shaksp. Antony and Cleopatra.*

The king is fled to London

To call a present court of parliament :

Let us pursue him, ere the *writs* go forth. *Id. Hen. VI.*

In at his windows throw

*Writings*, all tending to the great opinion

That Rome holds of his name. *Id. Julius Cæsar.*

I have seen her rise from her bed, take forth paper,

fold it, and *write* upon 't. *Id. Macbeth.*

All three were ruined by justice and sentence, as delinquents; and all three famous *writers*. *Bacon.*

Let it not your wonder move,

Less your laughter, that I love;

Though I now *write* fifty years,  
I have had, and have, my peers. *Ben Jonson.*

Their doctrine and their story *written* left,  
They die. *Milton.*

Chaste moral *writing* we may learn from hence,

Neglect of which no wit can recompence;

The fountain which from Helicon proceeds,

That sacred stream, should never water weeds.

Sacred *writ* our reason does exceed. *Waller.*

*Id.*

*Written* language is a description of the audible signs by signs visible. *Holder.*

The time, the place, the manner how to meet,

Were all in punctual order plainly *writ*. *Dryden.*

Cain was so fully convinced that every one had a right to destroy such a criminal, that he cries out, every one that findeth me shall slay me; so plain was it *writ* in the hearts of all mankind. *Loche.*

His story, filled with so many surprising incidents, bears so close an analogy with what is delivered in holy *writ*, that it is capable of pleasing the most delicate reader, without giving offence to the most scrupulous. *Addison's Spectator.*

There is not a more melancholy object in the learned world, than a man who has *written* himself down.

*Addison.*

Peaceable times are the best to live in, though not so proper to furnish materials for a *writer*. *Id.*

Hold up your head, hold up your head :

Would it were not my lot to shew ye

This cruel *writ*, wherein you stand

Indicted by the name of Chloe. *Prior.*

I chose to *write* the thing I durst not speak

To her I loved. *Id.*

For every *writ* of entry, whereupon a common recovery is to be suffered, the queen's fine is to be rated upon the *writ* original, if the lands comprised therein be held. *Ayliffe.*

They can *write* up to the dignity and character of the authors. *Felton on the Classics.*

Increase of years makes men more talkative, but less *writative*; to that degree, that I now *write* no letters but of plain how d'ye's. *Pope to Swift.*

'Would a *writer* know how to behave himself with relation to posterity, let him consider in old books what he finds that he is glad to know, and what omissions he most laments. *Swift.*

WRITER, among the Scottish lawyers, is a title very generally given to all men of business and agents before the inferior courts, and all over the country, as well as to solicitors at law, and all, in general, who are called attorneys in England.

WRITERS TO THE SIGNET, or CLERKS TO THE SIGNET, a very numerous and respectable society of gentlemen of the law in Scotland, who are chiefly employed in all civil and criminal trials before the courts of session and judiciary. See LAW. They are generally gentlemen of landed property.

WRITHE, *v. a. & v. n.* } Saxon *grutan*. To

WRITHE, *v. a.* }

distort; deform with distortion; twist with violence; wrest: be twisted or convolved with agony: writhle is an obsolete verb active of the same signification.

Her *writhled* skin, as rough as maple rind,  
So scabby was, that 'twould have loathed all woman-kind. *Spenser.*

The reason which he yieldeth, sheweth the least part of his meaning to be that whereunto his words are *writhed*. *Hooker.*

It cannot be this weak and *writhed* shrimp  
Should strike such terror in his enemies.

*Shakspeare. Henry VI.*

Then Satan first knew pain,

And *writhed* him to and fro convolved. *Milton.*

Her mouth she *writhed*, her forehead taught to frown,

Her eyes to sparkle fires to love unknown. *Dryden.*

Let each be broken on the rack;

Then, with what life remains, impaled, and left

To *writhe* at leisure round the bloody stake. *Addison.*

WRITING, the art or act of signifying and conveying our ideas to others, by letters or characters visible to the eye. See ENGLISH LANGUAGE and LANGUAGE.

The most ancient remains of writing, which have been transmitted to us, are upon hard substances, such as stones and metals, which were used by the ancients for edicts and matters of public notoriety; the decalogue was written on two tables of stone; but this practice was not peculiar to the Jews, for it was used by most of the eastern nations, as well as by the Greeks and Romans. The laws penal, civil, and ceremonial, among the Greeks, were engraven on tables of brass which were called *cyrbes*. Wood was also used for writing on in different countries. In the Sloanian library (No. 4852) are six specimens of Kusic writing, on boards about two feet in length, and six inches in depth. The Chinese, before the invention of paper, wrote or engraved with an iron tool upon thin boards or on bamboo. Pliny says, that table books of wood were in use before the time of Homer. These table books were called by the Romans *pugillares*. The wood was cut into thin slices, and finely planed and polished. The writing was at first upon the bare wood, with an iron instrument, called a style. In later times these tables were commonly coated with wax, and written upon with that instrument. The matter written upon the tables which were thus waxed over was easily effaced, and by smoothing the wax, new matter might be substituted in the place of what had been written before. The Greeks and Romans continued the use of waxed table books long after the use of papyrus, leaves, and skins, became common, because they were so convenient for correcting extemporary compositions. Table books of ivory are still used for memorandums, but they are commonly written upon with black lead pencils. The practice of writing on table books covered with wax was not entirely laid aside till the commencement of the fourteenth century. The bark of trees was also used for writing by the ancients, and is so still in several parts of Asia. The same thing may be said of the leaves of trees. The use of PARCHMENT, VELLUM, PYPYRUS, and PAPER, for writing is well known. See these articles. It is obvious that when men wrote, or rather engraved on hard substances, instruments of metal were necessary, such as the chisel and the stylus; but the latter was chiefly used for writing upon boards, waxed

tablets, or on bark. When the ancients wrote on softer materials than wood or metal, other instruments were used for writing with, of which reeds and canes seem to have been the first. Reeds and canes are still used as instruments for writing with by the Tartars, the Indians, the Persians, the Turks, and the Greeks. Pencils made of hair are used by the Chinese for their writing. Hair-pencils have likewise been used for writing in Europe. Large capital letters were made with them from the time of the Roman emperors till the sixteenth century. After the invention of printing they were drawn by the illuminators. Quills of geese, swans, peacocks, crows, and other birds, have been used in these western parts for writing with, but how long is not easy to ascertain. St. Isidore of Seville, who lived about the middle of the seventh century, describes a pen made of a quill as used in his time.

WRONG, *n. s., adj., adv., &*  
 WRONG'DOER, *n. s.* [v. a.] Saxon *ppnæge*;  
 WRONG'ER, Swedish *wrang*;  
 WRONG'FUL, *adj.* Goth. *raung*. An  
 WRONG'FULLY, *adv.* injury; designed  
 WRONG'HEAD, *adj.* or known detri-  
 WRONG'HEADED, not right;  
 WRONG'LESSLY, *adv.* not justice; crime;  
 WRONG'LY. error: the deriva-  
 tives follow all  
 these meanings.

If he go *wrong*, she will give him over to his own ruin. *Eccles.*

If it be right to comply with the *wrong*, then it is *wrong* to comply with the right. *Lesley.*

She resolved to spend all her years, which her youth promised should be many, in bewailing the *wrong*, and yet praying for the *wrongdoer*. *Sidney.*

Dorus, said Pamela, you blame your fortune very *wrongfully*, since the fault is not in fortune, but in you, that cannot frame yourself to your fortune; and as *wrongfully* do require Mopsa to so great a disparagement as to her father's servant. *Id.*

Dearly esteemed of her for his exceeding good parts, being honourably courteous, and *wronglessly* valiant; considerably pleasant in conversation; and an excellent courtier, without unfaithfulness. *Id.*

For fear the stones her tender foot should *wrong*, Be strewed with fragrant flowers all along. *Spenser.*

So worthy a part of divine service we should greatly *wrong*, if we did not esteem preaching as the blessed ordinance of God. *Hooker.*

This poor fellow He had thought to murder *wrongfully*. *Shakspeare.*  
 What thou wouldst highly,  
 That wouldst thou holily; wouldst not play false,  
 And yet wouldst *wrongly* win. *Id. Macbeth.*

Judge me, you gods! *wrong* I mine enemy? *Shaks.*  
 I am so far from granting thy request,  
 That I despise thee for thy *wrongful* suit. *Id.*

Many times a prince is driven to spend far more of his treasure in punishing by war the *wrongers* of his people, than the loss of his people did amount unto. *Raleigh.*

They ever do pretend To have received a *wrong*, who *wrong* intend. *Daniel.*

He that hath *wronged* so in daily trade, that he knows not in what measure he hath done it, must redeem his fault by alms, according to the value of his *wrongful* dealing. *Taylor.*

One spake much of right and *wrong*. *Milton.*  
 Those whom forms of laws  
 Condemned to die, when traitors judged their cause,  
 Nor want they lots, nor judges to review  
 The *wrongful* sentence, and award a new. *Dryden.*

I cry thee mercy, for suspecting a friar of the leas good nature: what, would you accuse him *wrongfully*? *Dryden.*

Cowley preferred a garden and a friend to those whom, in our own *wrong*, we call the great. *Id.*

We never think of the main business of life till a vain repentance minds us of it at the *wrong* end. *L'Estrange.*

Madmen, having joined together some ideas very *wrongly*, err, as men do that argue right from *wrong* principles. *Locke.*

He who suffers *wrongfully* in a man's opinion, resolves to give him reason for his suspicion. *Spectator.*

Once more farewell!  
 And know thou *wrong'st* me if thou think'st  
 Ever was love or ever grief like mine. *Addison.*

Proceed: quoth Dick, Sir, I aver  
 You have already gone too far;  
 When people once are in the *wrong*,  
 Each line they add is much too long;  
 Who fastest walks, but walks astray,  
 Is only farthest from his way. *Prior.*

If any seat be taken away by a stranger, the churchwarden may have action against the *wrongdoer*. *Ayliffe.*

Much do I suffer, much, to keep in peace  
 This jealous, waspish *wronghead* rhyming race. *Pope.*  
 Ten censure *wrong*, for one that writes amiss. *Id.*  
 In the judgment of right and *wrong*, every man has a self. *Watts.*

Singularity shews something *wrong* in the mind. *Clarissa.*

Who want, while through black life they dream  
 along,  
 Sense to be right, and passion to be *wrong*. *Young.*

Their hearts are constantly employed, perverted, and kept in a *wrong* state, by the indiscreet use of such things as are lawful to be used. *Law.*

WROTH, *adj.* Sax. *ppað*; Danish, *vrod*. Angry. Obsolete.

The Lord said unto Cain, why art thou *wroth*? *Genesis.*

WROUGHT. Sax. *pnogþ*. The *pret.* and *part.* *pass.* of work. Effected; influenced; performed; labored; agitated; gained.

Moses and Eleazer took the gold, even all *wrought* jewels. *Numbers.*

Take an heifer which hath not been *wrought* with, and which hath not drawn in the yoke. *Deuteronomy.*

She hath *wrought* a good work upon me. *Matthew.*

Had I thought the sight of my poor image  
 Would thus have *wrought* you, for the stone is mine,  
 I'd not have shewed it. *Shakspeare.*

My dull brain was *wrought*  
 With things forgot. *Id.*

It had been no less a breach of peace to have *wrought* any mine of his, than it is now a breach of peace to take a town of his in Guian, and burn it. *Raleigh.*

The spirit is *wrought*,  
 To dare things high, set up an end my thought. *Chapman.*

Such another field  
 They dreaded worse than hell: so much the fear  
 Of thunder, and the sword of Michael,  
 Wrought still within them. *Milton.*

A ship by skillful steersman *wrought*. *Id.*

The Jews wanted not power and ability to have convinced the world of the falsehood of these miracles, had they never been *wrought*. *Stephens.*

Do not I know him, could his brutal mind  
 Be *wrought* upon? could he be just or kind? *Dryd.*

His too eager love  
 Has made him busy to his own destruction,  
 His threats have *wrought* this change of mind in Pyrrhus. *Philippo.*

Th's Artemisa, by her charms,  
 And all her sex's cunning, wrought the king. *Rowe.*



The two friends had *wrought* themselves to such an habitual tenderness for the children under their direction, that each of them had the real passion of a father.

Addison.

Advantage was taken of the sanguine temper which so many successors had *wrought* the nation up to.

Swift.

Whatever littleness and vanity is to be observed in the minds of women, it is, like the cruelty of butchers, a temper that is *wrought* into them by that life which they are taught and accustomed to lead.

Law.

WRY, *adj.*, *v. n.*, & *v. a.* Swedish *wra*, from writhe. Crooked; disturbed; deviating from the right direction; to be contorted or writhed: to distort.

These *wry* too much on the right hand, ascribing to the holy scripture such kind of perfection as it cannot have.

Sandys.

To what pass are our minds brought, that from the right line of virtue are *wryed* to these crooked shifts?

Sidney.

He mangles and puts a *wry* sense upon protestant writers.

Aiturbury.

It is but a kick with thy heels, and a *wry* mouth, and Sir Roger will be with thee.

Arbuthnot.

WRYNECK, in ornithology. See JYNN.

WULFENIA, in botany, a genus of plants in the class diandria, and order of monogynia. They have hermaphrodite flowers furnished with two stamina and one style, and regular corollæ.

WURMBEA, a genus of plants in the class hexandria, and order of trigynia. They bear hermaphrodite flowers furnished with six stamina of equal length, and three styles.

WURMSER (Dagobert Sigismund), count, field-marshal in the Austrian service, was born in Alsace in 1717, and served first in the French army, next in that of the emperor, where he rose rapidly. In 1793 he defeated the French republicans, drove them into Alsace, and took Hagenau, and other towns; but, fresh troops coming against him, he was defeated at Teischweiler. In 1794 he took Mannheim. In 1796 he defeated the French in Italy twice, but was forced to retreat to Mannheim, where he capitulated, November 2d, 1797. He died in December 1797, aged eighty.

WURST. See WERST.

WURZBURG, a city of Franconia, the capital formerly of a bishopric and grand duchy, now of the Bavarian circle of the Lower Maine, situated on the Maine. Nothing can be more pleasant than the environs. A tract of several thousand acres around the town is covered with vineyards, and the Maine is here a large and noble stream, dividing the town into two parts, of which the larger is on the right bank; they are joined by an elegant bridge. On the left bank is a hill, with a castle, formerly the episcopal residence, now a citadel. The town itself is surrounded with a mound and moat. There are public baths on the river, and an abundant supply of spring water. The town, however, is indifferently built. The public walks are on the open space, formerly the mound or rampart, or along a wide street leading to the bridge on the Maine. The palace belonged formerly to the bishop, afterwards to the archduke. It is of an oblong form, on the plan of Versailles, and of great extent. Next ranks the hospital, a large and regular structure. The cathedral is also large, but in an indifferent style of architecture. The churches are numerous, but none remarkable. The monasteries are reduced to three. The university of Wurzburg dates from

1403, and is one of the least defective of the Catholic seminaries in Germany. The population is nearly 20,000. 130 miles N. N. W. of Munich and seventy-five N. N. E. of Stutgard.

WYATT (Sir Thomas), an accomplished gentleman, of an ancient family in Kent, educated at St. John's College, Cambridge, and at Oxford. Henry VIII. knighted him, and sent him on various embassies. He turned the Psalms into verse, and wrote several elegant sonnets, printed with those of E. Surry. He died in 1531.

WYCHERLEY (William), an eminent English comic poet, was born about 1640. A little before the restoration of king Charles II. he became a gentleman commoner of Queen's College, Oxford, where he was reconciled by Dr. Barlow to the Protestant religion, which he had a little before abandoned in his travels. He afterwards entered himself in the Middle Temple, but soon quitted the study of the law for pursuits more agreeable to his own genius, as well as to the taste of the age. Upon writing his first play, entitled *Love in a Wood*, or *St. James's Park*, which was acted in 1672, he became acquainted with several of the celebrated wits both of the court and town, and likewise with the duchess of Cleveland. Some time after appeared his comedies, called *The Gentleman Dancing Master*, *The Plain Dealer*, and *The Country Wife*; all which were acted with applause. George duke of Buckingham had a very high esteem for him, and bestowed on him several advantageous posts. King Charles also showed him signal marks of favor; and once gave him a proof of his esteem, which, perhaps, never any sovereign prince before had given to a private gentleman. Mr. Wycherley, being ill of a fever at his lodgings in Bow Street, the king did him the honor of a visit. Finding him extremely weakened, he commanded him to take a journey to the south of France, and assured him at the same time that he would order him £500 to defray the charges of the journey. Mr. Wycherley accordingly went into France, and, having spent the winter there, returned to England, entirely restored to his former vigor. The king, shortly after his arrival, told him that he had a son, who, he was resolved, should be educated like the son of a king, and that he could not choose a more proper man for his governor than Mr. Wycherley; for which £1500 per annum should be settled upon him. Immediately after this offer he went to Tunbridge, where he suddenly became acquainted with and married the countess of Drogheda, without acquainting the king. By this step, which was looked upon as a contempt of his majesty's orders, he forfeited the royal favor. The countess of Drogheda settled her whole fortune upon him; but, his title being disputed after her death, he was so reduced by the expenses of the law, and other incumbrances, as to be unable to satisfy the impatience of his creditors, who threw him into prison; and the bookseller who printed his *Plain Dealer*, by which he got almost as much money as the other gained reputation, was so ungrateful as to refuse to lend him £20 in his extreme necessity. In that confinement he languished seven years; but at length king James, going to see the above play, was so charmed with it, that he gave immediate orders for the payment of his debts, and even granted him a pension of £200 per annum. But the prince's bountiful intentions were in a great measure defeated merely through Mr



Vycherley's modesty; he being ashamed to tell the earl of Mulgrave, whom the king had sent to demand it, a true state of his debts. He laboured under the weight of these difficulties till his father died, who left him £600 a year. But this estate was under limitations, he being only a tenant for life, and not being allowed to raise any money for the payment of his debts. However he took a method of doing it, which few suspected to be his choice; and this was, making a jointure. He had often declared that he was resolved to die married, though he could not bear the thoughts of living in that state again. Accordingly, just at the eve of his death, he married a young gentlewoman with £1500 fortune, part of which he applied to the uses he wanted it for. Eleven days after the celebration of these nuptials, in December 1715, he died, and was interred in the vault of Covent Garden Church. Besides his plays above mentioned he published a volume of poems in folio. In 1728 his posthumous works in prose and verse were published by Mr. Theobald.

**WYCOMBE-CHIPPING**, or High, a borough, market town, and parish, in Desborough hundred, Bucks, twenty-nine miles west by north of London. The town consists principally of one extensive street, with several small ones branching therefrom, on the south side of which runs a small river, which falls into the Thames, below Marlow. There are several paper and corn mills in the neighbourhood, which constitute the chief traffic of the place. Here is a town-hall, a free grammar-school, and a royal military college. The market on Friday is well supplied.

**WYKEMAN** (William of). See **WILLIAM**.

**WYMONDHAM**, a market town and parish in Forehoe hundred, nine miles south-west of Norwich, and 100 north-east by north of London; containing 895 houses and 4708 inhabitants, being in six divisions, called Downham, Market Street, Silfield, Sutton, Town-green, and Wattlefield. Here was a priory of Benedictine monks, which in 1448 was erected into an abbey, the east part of the church of which was made parochial. Wymond-

ham has a free-school and a charity-school. This town suffered considerably by fire in 1615, when 300 houses were consumed; and in 1631 the plague carried off a great number of persons. Many of the inhabitants are employed in weaving, and in the manufacture of small wooden ware. Market on Friday.

**WYNDHAM** (Sir William), descended of an ancient family, was born about 1687, and succeeded young to the title and estate of his father. On his return from his travels he was chosen member for Somersetshire, in which station he served in the three last parliaments of queen Anne, and as long as he lived: after the change of the ministry in 1710 he was appointed secretary at war; and in 1713 was raised to be chancellor of the exchequer. Upon the breach between the earl of Oxford and lord Bolingbroke, he adhered to the latter. He was removed from his employment on the accession of George I., and falling under suspicion on the breaking out of the rebellion, in 1715, was apprehended. He made his escape; a reward was published for apprehending him; he surrendered, was committed to the tower, but never brought to trial. After he regained his liberty he continued in opposition to the several administrations under which he lived, and died in 1740.

**WYOMING**, formerly a general name of a tract of country in Pennsylvania, on the Susquehanna, with a fort, two miles above Wilkiesbarre. In the year 1778 this fort was attacked by a party of British and Indians. The garrison were soon overpowered, and fell a prey to Indian barbarity; after a bloody military execution of a great part, the rest were shut up in the barracks, to which they set fire, and consumed the whole.

**WYTHBURN**. See **LEATHES**.

**WYTMAN** (Matthew), a Dutch painter, born at Gorcum, 1650. His landscapes and conversations were done elegantly. He died in 1689.

**WYVERN**, in heraldry, a chimerical animal, variously represented, with or without feet, legs, or wings. See **HERALDRY**.

## X.

**X** is a letter which, though found in Saxon words, begins no word in the English language.

**X** is used, 1. as a letter; 2. as a numeral; and 3. as an abbreviation. **I.** As a letter, **X** is the twenty-second letter of our alphabet, and a double consonant. It was not used by the Hebrews or ancient Greeks; for, as it is a compound letter, the ancients, who used great simplicity in their writings, expressed it by its component letters *c*, or *k*. Neither have the Italians this letter, but express it by *ss*. **X** begins no word in our language but such as are of Greek original: and is in few others but what are of Latin derivation; as *perplex*, *reflexion*, *defluxion*, &c. We often express this sound by single letters, as *cks*, in backs, necks; by *ks*, in books, breaks; by *cc*, in access, accident; by *ct*, in action, unction, &c. The English and French pronounce it like *cs* or *ks*; the Spaniards like *c* before *a*, viz. *Alexandra*, as if it were *Alecandra*. **II.**

As a numeral it expressed ten, whence, in old Roman MSS., it is used for denarius; and as such seems to be made of two *V*'s placed one over the other. When a dash is added over it, thus  $\overline{X}$ , it signifies 10,000. **III.** As an abbreviation **X** was long used by the learned throughout Europe, as an abbreviation for Christ, because the Greek capital **X**, the first letter of his name in Greek, is the same in form with our **X**. And, in analogy with this, **Xtian** was used as an abbreviation for Christian; and in both these abbreviations the cross form of this letter suited the Roman Catholic taste.

**XACCA** (Erasmus), a learned Sicilian of the seventeenth century. He wrote a History of the Eruption of Mount Etna in 1669, in Italian; a Latin Poem on Fevers; and he translated Tasso's Jerusalem into Latin.

**XAINTES SANTOS**, or All Saint's Islands, having been discovered on that holiday, by the



Spaniards; three small islands of the West Indies, situated to the south-east of Guadalupe. The most westerly of them is Terra de Bas, or the Low Island, and the most easterly Terra de Haut, or the High Island. They are about six miles distant from Guadalupe, and fifteen from Mariagalante. Long. 61° 32' W., lat. 15° 56' N

**XALAPA**, a considerable town of Mexico, in the intendency of Vera Cruz, formerly famous for the fair held on the arrival of the stated fleets from Europe; and, ever since the commerce was declared free, a considerable mart for European commodities. From the convent of St. Francis there is a magnificent view of the colossal summit of the Coffre and the Pic d'Orizaba, of the declivity of the Cordillera, of the river of L'Antigua, and even of the ocean. Whenever the north wind blows at Vera Cruz, the inhabitants of Xalapa are enveloped in a thick fog. The thermometer then descends to 63° and 66° of Fahrenheit, and during this period the sun and stars are frequently invisible for two or three weeks together. The land rises towards the interior by a gentle ascent, until it reaches an elevation of about 8000 feet, when it spreads out into extensive plains. Xalapa is situated about half way up this ascent, being 4264 feet above the level of the sea. It is estimated to contain 13,000 inhabitants, and is about fifty miles north-west of Vera Cruz, and eighty east of Mexico.

**XANTHICA**, a festival observed by the Macedonians in the month Xanthicus, when a lustration was made of the army, by cutting a bitch in two parts, laying them separate, and marching the soldiers between them, after which they concluded with a mock fight.

**XANTHIPPUS**, a brave Spartan general, who was sent with a body of Greeks to assist the Carthaginians in the first Punic war; which he did so effectually, by introducing proper discipline into their army, that they appointed him commander in chief, and he completely defeated the whole Roman army, taking the celebrated general Regulus himself prisoner; while the Carthaginians lost only 800 men. See **CARTHAGE**. It is said that they ungratefully drowned him by sending him home in a leaky ship.

**XANTHIUM**, in botany, a genus of plants of the class monœcia or pentandria, and arranged in the natural classification under the forty-ninth order, composite. The male flowers are composite, common calyx imbricated; corollæ monopetalous, tubular, quinquefid. Female: calyx involucrem of two leaves, containing two flowers; no corolla; drupa dry, prickly; nucleus bilocular. There are five species, only one of which is a native of Britain, viz. *X. strumarium*, lesser burdock. The stem of this plant is a foot and a half high, thick, often spotted; leaves heart-shaped, lobed, on long foot-stalks.

**XANTHOXYLUM**. See **ZANTHOXYLUM**.

**XANTHUS**, a historian of Sardis, under Darius.

**XANTHUS**, a Greek historian of Lydia.

**XANTHUS**, a philosopher of Samos, called by others Iadmon, who purchased Æsop, the fabulist for his wit, and afterwards gave him his liberty. See **ÆSOP**.

**XANTHUS**, in fabulous history, one of the horses of Achilles, who, when chid with severity, spoke to his master, and told him he would soon be killed. Hom. Il. 19.

**XANTHUS**, king of Bœotia. See **ATTICA**.

**XANTHUS**, in geography, a river of Troas. See **SCAMANDER**.

**XANTHUS**, a river of Lycia, sacred to Apollo, running into the sea near Patara. Hom. Il. 6, 172.

**XANTHUS**, a town of Lycia, on the above river, fifteen miles from the coast. It was besieged by Brutus, who wished to spare the Xanthians; but they were so zealous for their independence that they set fire to their city; and Brutus's troops, by their utmost exertions, could only get 150 of them saved. Appian 4. Plut.

**XANTICLES**, one of the leaders of the 10,000 Greeks in their famous retreat out of Persia, after the battle of Cunaxa.

**XANTIPPE**, the wife of Socrates, proverbially famous as a scold. But, while this foible is often repeated, her virtues are forgot. No wife ever showed more affectionate grief than she did at her husband's death. See **SOCRATES**.

**XANTIPPÊ**, the celebrated Roman daughter, who preserved her father's life by suckling him in jail. See **FILIAL PIETY**.

**XANTIPPE**, the daughter of Dorus, wife of Pleuron, and mother of Agenor, &c.

**XANTIPPUS**, or **XANTHIPPIUS**, a celebrated Athenian general and admiral, who defeated the Persian fleet at Mycale, in conjunction with Leotychides, king of Sparta; and was appointed along with Aristides to judge of Themistocles' secret proposal. See **ATTICA**, and **MYCALE**. He married Agariste, the niece of Clisthenes, who expelled the Pisistratidæ; by whom he had the celebrated Pericles. He also conquered the Thracians. A statue was erected to his honor in the citadel of Athens.

**XAVIER** (St. Francis), the apostle of the Indies, was born at Xavier in 1506, and educated at Paris, where he formed an intimacy with Ignatius Loyola, the founder of the Jesuits. Seized with a similar zeal, he bound himself with some others to attempt to convert the heathens. In 1541 he embarked at Lisbon for Goa, and labored with great zeal in Japan and various parts of India. He was even preparing for a voyage to China, when he died at Goa in 1552. Pope Gregory XV. enrolled him among the saints in 1622. His works are, 1. Five Books of Epistles, Paris, 8vo., 1631. 2. A Catechism. 3. Opuscula.

**XAUXA**, or **Jauxa**, a province of Peru, bounded north and north-east by the province of Tarma, east by the mountain of the Indians, south-east by the province of Huanta, south by that of Angaraes, south-west by that of Yauyos, and west by that of Guarochiri. It is twelve leagues long from north to south, and fifteen broad from east to west. This province is a ravine or valley of delightful temperature, although on the heights of either side of it a considerable degree of cold is felt.

**XAUXA**, the capital of a district of the same name, situated near the river Xauxa. It has some woollen manufactures.

**XAUXA**, a large and abundant river of Peru, which has its source in lake Chinchicocha, in the province of Tarma.

**XEBEC**, or **ZEBEC**, a small three-masted vessel, navigated in the Mediterranean Sea, and on the coasts of Spain, Portugal, and Barbary.

**XENAGORAS**; 1. An ancient historian.—Dion Hal. 2. A philosopher who measured the height of mount Olympus.

**XENARCHIUS**; 1. An ancient comic poet. 2.



A peripatetic philosopher, who taught philosophy at Alexandria and Rome, and was intimate with Augustus.—Strab. 14. 3. A prætor of the Achæan league, who favored Perseus.

XENEUS, a native of Chios, who wrote a History of Chios.

XENIADES, a Corinthian, who went to buy Diogenes, the Cynic, when sold as a slave. Upon asking him what he could do? he replied, Command freemen; on which he gave him his freedom, and made him tutor to his children. Gellius, ii. c. 18.

XENIUS, a surname of Jupiter, as the god of Hospitality.

XENOCLES, a tragic writer, who obtained a prize four times in competition with the celebrated Euripides. His grandson Xenocles also excelled in tragedy. *Ælian*. ii. c. 8.

XENOCRATES, a celebrated ancient Grecian philosopher, born at Chalcedon in the ninety-fifth Olympiad. At first he attached himself to Æschines, but afterwards became a disciple of Plato, who took much pains in cultivating his genius, which was naturally dull. His temper was gloomy, his aspect severe, and his manners little tinged with urbanity. These material defects Plato took great pains to correct, advising him to sacrifice to the graces; Xenocrates was patient of instruction, and, as long as Plato lived, was one of his most esteemed disciples; after his death he adhered to his doctrine; and, in the second year of the 110th Olympiad, he took the chair in the academy, as the successor of Speusippus. Xenocrates was celebrated among the Athenians, not only for his wisdom but for his virtues. So eminent was his reputation for integrity, that when he was called upon to give evidence in a judicial transaction, in which an oath was usually required, the judges agreed that his simple asseveration should be taken, as a public testimony to his merit. Even Philip II. of Macedon found it impossible to corrupt him. So abstemious was he, with respect to food, that his provision was often spoiled before it was used. His chastity was invincible. Phryne, the celebrated Athenian courtesan, attempted without success to seduce him. Of his humanity, even to brutes, he gave a proof, by protecting a sparrow pursued by a hawk, which flew into his bosom. He was economic of his time, and allotted a certain portion of each day to its proper business. One of these he employed in meditation. He was an admirer of the mathematical sciences. He lived to the first year of the 116th Olympiad, or the eighty-second of his age, when he lost his life by falling in the dark into a reservoir of water.

XENOPHANES, the founder of the eleatic sect of philosophy among the Greeks, was born at Colophon about the sixty-fifth Olympiad. From some cause or other he left his country early, and took refuge in Sicily, where he supported himself by reciting in the court of Hiero elegiac and iambic verses, which he had written in reprehension of the Theogonies of Hesiod and Homer. From Sicily he passed over into Magna Græcia, where he took up the profession of philosophy, and became a celebrated preceptor in the Pythagorean school. Indulging, however, a greater freedom of thought than was usual among the disciples of Pythagoras, he ventured to introduce new opinions of his own, and in many particulars to oppose the doctrines of Epimenides, Thales, and Pythagoras. Xenophanes possessed the Pythagorean chair of

philosophy about seventy years, and lived to the extreme age of 100 years, that is, according to Eusebius, till the eighty-first Olympiad. The doctrine of Xenophanes concerning nature is so imperfectly preserved, and obscurely expressed, that it is no wonder that it has been differently represented by different writers. Perhaps the truth is, that he held the universe to be one in nature and substance but distinguished in his conception between the matter of which all things consist, and that latent divine force, which, though not a distinct substance but an attribute, is necessarily inherent in the universe, and is the cause of all its perfection.

XENOPHILUS; 1. A Pythagorean philosopher, who lived till he was 170, and enjoyed all his faculties to the last.—*Val. Max.* 8, c. 13. 2. One of Alexander's generals.

XENOPHON, the son of Gryllus, an illustrious philosopher, general, and historian, was born at Athens in the third year of the eighty-second Olympiad. He became a disciple of Socrates, and made a rapid progress in that moral wisdom for which his master was so eminent. Xenophon accompanied Socrates in the Peloponnesian war, and fought courageously in defence of his country. He afterwards entered into the army of Cyrus as a private volunteer in his expedition against his brother. This enterprise proving unfortunate, Xenophon, after the death of Cyrus, advised his fellow soldiers to attempt a retreat into their own country. They listened to his advice; and, having had many proofs of his wisdom as well as courage, they gave him the command of the army in the room of Clearchus and Proxenus, who had fallen in battle. See PERSIA. In this command he acquired great glory by the prudence and firmness with which he conducted them back, through the midst of innumerable dangers, during a period of fifteen months, and through a tract of 1155 leagues into their own country. The particulars of this memorable adventure are related by Xenophon himself in his *Retreat of the Ten Thousand*. After his return into Greece, he joined Agesilaus, king of Sparta, and fought with him against the Thebans in the celebrated battle of Chæronea. The Athenians, displeased at this alliance, brought a public accusation against him for his former conduct in engaging in the service of Cyrus, and condemned him to exile. The Spartans, upon this, took Xenophon, as an injured man, under their protection, and provided him a comfortable retreat at Scillus in Elea. Here, with his wife and two children, he remained several years, and passed his time in the society of his friends, and in writing those historical works which have rendered his name immortal. A war at length arose between the Spartans and Eleans, and Xenophon was obliged to retire to Lepreus, where his eldest son had settled. He afterwards removed with his whole family to Corinth, where, in the first year of the 105th Olympiad, he died.

XENOPHON, a physician and favorite of the emperor Claudius, born in the island of Cos, and descended from Æsculapius. For his sake Claudius exempted the people of Cos from all taxes. Yet the monster was so ungrateful as to poison his benefactor to please the parricide Agrippina. Tac. 12.

XENOPHON THE YOUNGER, a Greek writer, so called to distinguish him from the historian, was born at Ephesus, and lived before Heliodorus,



about the beginning of the fourth century. He is only known by his *Ephesiaca*, a Greek romance in five books, which is esteemed, and contains the amours or adventures of Abrarcomes and Anthia. This romance was printed by Cocceius, at London, in Greek and Latin, in 1726, 4to.

**XERANTHEMUM**, in botany, Austrian sneezewort, eternal or everlasting flower, a genus of plants, in the class of syngenesia, and order of polygamia superflua; ranking by the natural method in the forty ninth order, compositæ. Plants of this genus bear compound flowers (see *BOTANY*, Index), in their aggregate state, or flosculose flowers; the calyx is a perianthium, containing the florets and receptacle. They have the florets of the disk hermaphrodite, and those of the radius female; and they are tubulose.

**XERES DE BADAJOZ**, or **XERES DE LOS CABALEROS**, a considerable inland town of the south-west of Spain, in Estremadura, on the small river Ardilla. It contains 8700 inhabitants, has manufactures of linen and leather, and in the environs very extensive pasturage, it being reckoned that at least 50,000 head of cattle, reared in this neighbourhood, are disposed of at the annual fairs. It is situated ninety miles N. N. W. of Seville, and thirty-four south of Badajoz.

**XERES DE LA FRONTERA**, a large and ancient town in the south-west of Spain, in Andalusia, sixteen miles N. N. E. of Cadiz. It is agreeably situated on the banks of the small river Guadalete, in the midst of one of the richest and best cultivated districts of Spain.

**XERXES I.**, the fifth king of Persia, memorable for the vast army he is said to have carried into the field against Leonidas king of Sparta; consisting, according to some historians, of 800,000 men, while others make it amount to 3,000,000 of men, exclusive of attendants. The fleet that attended this prodigious land force is likewise made to consist of 2000 sail; and all the success they met with was the taking and burning the city of Athens; for the army was shamefully repulsed near the straits of Thermopylæ, by Leonidas, and the fleet was dispersed and partly destroyed by Themistocles at the straits of Salamis, who had only 380 sail under his command. Xerxes was assassinated by Artabanes, chief captain of his guards, and his distinguished favorite. See *SPARTA*.

**XERXES II.**, the son of Ahasuerus, or Artaxerxes I., by queen Esther. See *PERSIA*.

**XIMENES (Garcia)**, the first king of Navarre. See *SPAIN*.

**XIMENES (Francis)**, a justly celebrated cardinal, bishop of Toledo, and prime minister of Spain, was born at Torrelaguna, in Old Castile, in 1437, and studied at Alcalá and Salamanca. He then went to Rome; and, being robbed on the road, brought nothing back but a bull for obtaining the first vacant prebend; but the archbishop of Toledo refused it him, and threw him into prison. Being at length restored to liberty, he obtained a benefice in the diocese of Sigüenza, where cardinal Gonzales de Mendoza, who was the bishop, made him his grand vicar. Ximenes some time after entered among the Franciscans of Toledo; but, being there troubled with visits, he retired to a solitude named Castanel, and applied himself to the study of divinity and the oriental tongues. At his return to Toledo, queen Isabella of Castile chose him for her confessor, and afterwards nominated him arch-

bishop of Toledo: which, next to the papacy, is the richest dignity in the church of Rome. 'This honor,' says Dr. Robertson, 'he declined with a firmness which nothing but the authoritative injunction of the pope was able to overcome. Nor did this height of promotion change his manners. Though obliged to display in public that magnificence which became his station, he himself retained his monastic severity. Under his pontifical robes he constantly wore the coarse frock of St. Francis, the rents of which he used to patch with his own hands. He at no time used linen, but was commonly clad in hair cloth. He slept always in his habit; most frequently on the floor or on boards, and rarely in a bed. He did not taste any of the delicacies which appeared at his table, but satisfied himself with that simple diet which the rule of his order prescribed. Notwithstanding these peculiarities, so opposite to the manners of the world, he possessed a thorough knowledge of its affairs, and discovered talents for business which rendered the fame of his wisdom equal to that of his sanctity.' His first care was to provide for the necessities of the poor; to visit the churches and hospitals; to purge his diocese of usurers and places of debauchery; to degrade corrupt judges, and place in their room persons whom he knew to be distinguished by their probity and disinterestedness. He erected a famous university at Alcalá; and in 1499 founded the college of St. Ildephonso. Three years after he undertook the Polyglot Bible; and for that purpose sent for many learned men to come to him at Toledo, purchased seven copies in Hebrew for 4000 crowns, and gave a great price for Latin and Greek manuscripts. At this Bible they labored above twelve years. It contains the Hebrew text of the Bible; the version of the Septuagint, with a literal translation; that of St. Jerome, and the Chaldee paraphrases of Onkelos; and Ximenes added to it a dictionary of the Hebrew and Chaldee words contained in the Bible. This work is called Ximenes's Polyglot. In 1507 pope Junius II. gave him the cardinal's hat, and king Ferdinand the Catholic entrusted him with the administration of affairs. Cardinal Ximenes was from this moment the soul of every thing that passed in Spain. He distinguished himself at the beginning of his ministry by discharging the people from the burdensome tax called *acavale*, which had been continued on account of the war against Granada; and labored with such zeal and success in the conversion of the Mahometans, that he made 3000 converts, among whom was a prince of the blood of the kings of Granada. In 1509 cardinal Ximenes extended the dominions of Ferdinand, by taking the city of Oran in the kingdom of Algiers. He undertook this conquest at his own expense, and marched in person at the head of the Spanish army, clothed in his pontifical ornaments, and accompanied by a great number of ecclesiastics and monks. Some time after, foreseeing an extraordinary scarcity, he erected public granaries at Toledo, Alcalá, and Torrelaguna, and had them filled with corn at his own expense; which gained the people's hearts to such a degree, that to preserve the memory of this noble action they had a eulogium upon it cut on marble, in the hall of the senate house at Toledo, and in the market-place. King Ferdinand dying, in 1516, left cardinal Ximenes regent of his dominions; and the archduke Charles, who was afterwards the emperor Charles



V., confirmed that nomination. The cardinal immediately made a reform of the officers of the supreme council and of the court, and put a stop to the oppression of the *grandees*. He vindicated the rights of the people against the nobility; and as by the feudal constitution the military power was lodged in the hands of the nobles, and men of inferior condition were called into the field only as their vassals, a king with scanty revenues depended on them in all his operations. From this state Ximenes resolved to deliver the crown; and issued a proclamation, commanding every city in Castile to enrol a certain number of its *burgesses*, and teach them military discipline; he himself engaging to provide officers to command them at the public expense. This was vigorously opposed by the nobles; but by his intrepidity and superior address he carried his point. He then endeavoured to diminish the possessions of the nobility, by reclaiming all the crown lands, and putting a stop to the pensions granted by the late king Ferdinand. This addition made to the revenues enabled him to discharge all the debts of Ferdinand, and to establish magazines of warlike stores. The nobles, alarmed at these repeated attacks, uttered loud complaints; but, before they proceeded to extremities, appointed some *grandees* of the first rank to examine the powers in consequence of which he exercised acts of such high authority. Ximenes received them with cold civility; produced the testament of Ferdinand, by which he was appointed regent, together with the ratification of that deed by Charles. To both these they objected; and he endeavoured to establish their validity. As the conversation grew warm, he led them insensibly to a balcony, from which they had a view of a large body of troops under arms, and of a formidable train of artillery. 'Behold,' says he, pointing to these, and raising his voice, 'the powers which I have received from his Catholic majesty. With these I govern Castile; and with these I will govern it, till the king, your master and mine, takes possession of his kingdom!' A declaration so bold and haughty silenced them and astonished their associates. They saw that he was prepared for his defence, and laid aside all thoughts of a general confederacy against his administration. At length, from the repeated intreaties of Ximenes, and the impatient murmurs of the Spanish ministry, Charles V. embarked, and landed in Spain, accompanied by his favorites. Ximenes was advancing to the coast to meet him, but at Bos Equillus was seized with a violent disorder, which his followers considered as the effects of poison. This accident obliging Ximenes to stop, he wrote to the king, and with his usual boldness advised him to dismiss all the strangers in his train, whose number and credit already gave offence to the Spaniards, and earnestly desired to have an interview with him, that he might inform him of the state of the nation and the temper of his subjects. To prevent this, not only the Flemings but the Spanish *grandees* employed all their address to keep Charles at a distance from Aranda, the place to which the cardinal had removed. His advice was now slighted and despised. Ximenes, conscious of his own integrity and merit, expected a more grateful return from a prince to whom he delivered a kingdom more flourishing than it had been at any former age, and a more extensive authority than the most illustrious of his ancestors had ever

possessed; and lamented the fate of his country about to be ruined by the rapaciousness and insolence of foreign favorites. While his mind was agitated by these passions, he received a letter from the king; in which, after a few cold and formal expressions of regard, he was allowed to retire to his diocese; and he expired a few hours after reading it, in 1517, in the eighty-first year of his age.

XIMENES (Father), a learned priest of the seventeenth century, who wrote a curious work in Italian, entitled *Del Vecchio e nuovo Gnomone Fiorentino*; printed at Florence in 1757, 4to. In this work he describes the grand *gnomon* erected by Paul Toscanella, in 1470, in the cathedral of Florence, which is reckoned the greatest of the kind in Europe.

XIMENES (Roderic), archbishop of Toledo, in the thirteenth century, who wrote a History of Spain in nine books.

XIMENIA, in botany, a genus of plants in the class of octandria, and order of monogynia. These plants bear hermaphrodite flowers, with eight stamina, and only one style.

XIPHIAS, in astronomy. See ASTRONOMY, Index.

XIPHIAS, in ichthyology, the sword fish, a genus of fishes belonging to the order of apodes. The upper jaw terminates in a long sword shaped rostrum, from which it is called the sword fish; there are no teeth in the mouth; the gill membrane has eight rays; and the body is somewhat cylindrical. There is but one species, viz. :—*X. gladius*, found in the European Ocean.

XULLA ISLANDS, four islands in the Eastern Seas, situated to the south-east of the Molucca passage. Xulla Bessey, which is the most considerable of them, is about eleven leagues in length, in good cultivation and well inhabited. The Dutch fort is near a village adjacent to the south-east point, where ships may procure refreshments.

XUTH. See XUTHUS.

XUTHUS, or XUTH, in the fabulous history of Chaldaea, a name of Noah. See DELUGE.

XUTHUS, in the fabulous history of Greece, a son of Hellen, and grandson of Deucalion. Being expelled from Thessaly by his brothers, he came to Athens, and married Creusa, the daughter of king Erechtheus, by whom he had Achæus and Ion, who gave name to Achaia and Ionia.

XYLANDER (William), a learned critic, born at Augsburg in 1532. In 1558 he became professor of Greek at Heidelberg. He had previously published a Latin version of Dion Cassius at Basil. In 1559 he published a Latin translation of Marcus Aurelius, and in 1568 another exceedingly correct. He also printed an accurate edition of Strabo in Greek and Latin. He died at Heidelberg in 1576.

XYLANTHRAX, or bovey coal, in mineralogy. See COAL. Its laminae are frequently flexible when first dug, though they generally harden when exposed to the air. It consists of wood penetrated with petrol or bitumen, and frequently contains pyrites, alum, sulphuric acid, &c. By distillation it yields a fetid liquor, mixed with a volatile alkali and oil; part of which is soluble in spirit of wine, and part of a mineral nature, and insoluble.

XYLO ALOES, or aloë wood, in the materia medica, is the product of a tree growing in China and some of the Indian Islands. See EXCOECARIA.



This drug is distinguished into the calambac or tambac, the common lignum aloes, and calambour. The calambac or finest aloes wood, called by authors lignum aloes præstantissimum, and by the Chinese sukhiang, is the most resinous of all the woods we are acquainted with; it is of a light spongy texture, very porous, and its pores so filled up with a soft and fragrant resin, that the whole may be pressed and dented by the fingers like wax, or moulded about by chewing in the mouth in the manner of mastich. This kind, laid on the fire, melts in great parts like resin, and burns away in a few moments with a bright flame and perfumed smell. Its scent, while in the mass, is very fragrant and agreeable; and its taste acrid and bitterish, but very aromatic and agreeable. It is so variable in its color, that some have divided it into three kinds; the one variegated with black and purple; the second with the same black but with yellowish instead of purple; and the third yellow alone like the yolk of an egg; this last is the least scented of the three. The variation, however, is owing to the trunk of the tree being itself of three different colors; and the heart of it is the valuable sort first described. The two following are supposed to be the other parts of the trunk; though this seems doubtful, especially in regard to the last sort, from the circumstance mentioned of its being found in large logs entire, and sometimes only the heart, which, as above noticed, constitutes the calambac. The lignum aloes vulgare is the second in value. This is of a more dense and compact texture, and consequently less resinous than the other; there is some of it, however, that is spongy, and has the holes filled up with the right resinous matter; and all of it, when good, has veins of the same resin in it. We meet with it in small fragments, which have been cut and split from larger; these are of a tolerably dense texture in the more solid pieces, and of a dusky brown color, variegated with resinous black veins. It is in this state very heavy, and less fragrant than in those pieces which show a multitude of little holes, filled up with the same blackish matter that forms the veins in others. The woody part of these last pieces is somewhat darker than the other, and is not unfrequently purplish, or even blackish. The smell of the common aloes wood is very agreeable, but not so strongly perfumed as the former. Its taste is somewhat bitter and acrid, but very aromatic. The calambour, called also agallochum sylvestre, and lignum aloes mexicanum, is light and friable, of a dusky and often mottled color, between a dusky green black and a deep brown. Its smell is fragrant and agreeable, but much less sweet than that of either of the others; and its taste bitterish, but not so much acrid or aromatic as either of the two former. This is said to be met with very frequently, and in large logs; and these sometimes entire, sometimes only the heart of the tree. This is the aloes wood

used by the cabinet makers and inlayers. This drug is esteemed a cordial taken inwardly; and is sometimes given in disorders of the stomach and bowels, and to destroy worms. A very fragrant oil may be procured from it by distillation; which is recommended in paralytic cases from five to fifteen drops. It is at present, however, but little used; and would scarcely be met with any where in the shops, but that it is an ingredient in some of the old compositions.

**XYLOPHYLLA**, in botany, a genus of plants, in the class of pentandria, and order of trigynia. These plants bear hermaphrodite flowers, furnished with five stamina and three styles.

**XYLOPIA**, in botany, a genus of plants, in the class gynandria, and order of polyandria; natural order fifty-second, coadunatæ. All the flowers of this genus have a monstrous appearance, owing to the uncommon structure of the parts of fructification. They have the stamina growing either upon the style itself or upon a receptacle, that stretches out into the form of a style, and supports both the stamina and the pistillum; and they have all many stamina.

**XYLOPOLIS**, an ancient town of Macedonia.—Plin. 4. c. 10.

**XYNOECIA**, or **XYNOICHIA**, in Grecian antiquity, an anniversary feast observed by the Athenians in honor of Minerva, upon the sixteenth of Hecatombæon, to commemorate their leaving, by the persuasion of Theseus, their country seats, in which they lay dispersed here and there in Attica, and uniting together in one body.

**XYPHILIN** (John), a learned Greek prelate, born in Trebisond, who became patriarch of Constantinople in 1064. He wrote a sermon, preserved in the Bibl. Patrium; and an abridgment of the History of Dion Cassius, which was printed in 1592, in folio. He died in 1075.

**XYRIS**, in botany, a genus of plants in the class of tetrandria, and order of monogynia; natural order sixth, ensatæ. These plants bear hermaphrodite flowers, furnished with one style, and four stamina, all of equal length. In this particular they differ from the plants of the class didynamia, which have also four stamina, but of which two are longer than the other two.

**XYSTARCHA**, in antiquity, the master or director of the xystus. In the Greek gymnasium, the xystarcha was the second officer, and the gymnasiarcha the first; the former was his lieutenant, and presided over the two xysti, and all exercises of the athleteæ therein.

**XYSTUS**, among the Greeks, was a long portico, open or covered at the top, where the athleteæ practised wrestling and running: the gladiators, who practised therein, were called xystici. Among the Romans, the xystus was only an alley, or double row of trees, meeting like an arbor, and forming a shade to walk under

## Y.

**Y**, at the beginning of words, is commonly taken, though erroneously, for a consonant; at the end, and when it follows a consonant, is a vowel, and has the sound of *i*. It is used at the end of words, and whenever two *i*'s would come together; and in words derived from the Greek, to express the *u*. **Y** was much used by the Saxons, whence *y* is found for *i* in the old English writers. In old English writers **Y** is sometimes prefixed as an increasing syllable to preterites and passive participles of verbs. It seems borrowed from *ze*, the Saxon augmentum of the preterite. It is sometimes put before present tenses.

**Y** is only used, 1. as a letter, 2. a numeral, and 3. as a word. I. As a letter, **Y** is the twenty-third of our alphabet: its sound is formed by expressing the breath with a sudden expansion of the lips from that configuration by which we express the vowel *u*. It is one of the ambigential letters, being a consonant in the beginning of words, and placed before all vowels, as in yard, yield, young, &c., but before no consonant, except in a few obsolete poetical words, such as *yclad*, *ycleped*, *ydread*, &c. At the end of words it is a vowel, and is substituted for the sound of *i*, as in *try*, *descri*, &c. In the middle of words it is not used so frequently as *i*, except in words derived from the Greek, as in *chyle*, *empyreal*, &c., though it is admitted into the middle of some pure English participles, as *dying*, *flying*, &c. The Romans had no capital of this letter, but used the small one in the middle and last syllables of words, as in *corymbus*, *onyx*, *martyr*. The form of the capital Greek **Υ** was nearly the same with our **Y**, though the small Greek *υ* resembles our *v* or *u*, which indeed it more nearly resembles in sound. Yet, in all translations, the form has been preferred to the sound; as in *Pyrrhus*, *Py-lades*, &c., which from the analogy of the sound should rather have been *Purhus*, *Pulades*, &c. The editor of the Supplement to the *Encyclopædia Britannica*, under the article *GLUCINA*, seems to censure the editor of the *Annales de Chemie* for not calling this mineral *glycina*; but it seems rather surprising that the literati in all ages have not preferred the *u* to the *y*, in all such translations and derivations. II. **Y** is also used as a numeral, signifying 150, or, according to *Baronius*, 159; and with a dash a-top, as  $\bar{Y}$ , it signified 150,000. III. As a word, **Y** is the name of several places.

**YABBAH**. See *JABI*.

**YACHMUR**, in zoology. See *CAPRA*.

A **YACHT**, or **YATCH**, is a vessel of state, usually employed to convey princes, ambassadors, or other great personages, from one kingdom to another. As the principal design of a yacht is to accommodate the passengers, it is usually fitted with a variety of convenient apartments, with suitable furniture, according to the quality or number of the persons to be contained therein. The royal yachts are commonly rigged as ketches, except the principal one reserved for the sovereign, which is equipped with three masts like a ship. They are in general elegantly furnished, and richly ornamented with sculpture; and always commanded by captains in his majesty's navy. Besides these, there are many other yachts of a smaller kind, employed by

the commissioners of the excise, navy, and customs, or used as pleasure-boats by private gentlemen.

**YACONS**. See *PENELOPE*.

**YAGUARROCHA**, a large and very deep lake of South America, in Quito, a league and a half in length, one league from the town of Ibarra. It is famous for having been the sepulchre of the inhabitants of Otobalo. Upon this place being taken by Huana Capac, the twelfth inca, he, being exasperated at the resistance which they made, ordered them all to be beheaded, and their bodies to be thrown into this lake; so that, from the waters of the lake being tinged of a bloody color, it acquired its present name, which signifies 'a lake of blood.' Lat. 0° 23' north.

**YAKOUTSK**, an extensive province of Asiatic Russia, forming one of the four into which the government of Irkoutsk is divided. It extends north from the boundary of the provinces of Irkoutsk Proper and of Nertschinsk, as far as the Frozen Ocean. It does not, however, reach to the eastern extremity of Asia, on which side it is bounded by the province of Okhotsk. The Lena traverses it through its whole extent from north to south.

**YAKOUTSK**, a town of Asiatic Russia, capital of the province of the same name, is situated on the western bank of the Lena, on a plain surrounded by mountains, which enclose it at the distance of ten or twelve miles. It contains 500 or 600 houses, and 3000 inhabitants, who, for the most part, are Cossacks or Yakouts.

**YALDEN** (Thomas), D. D., an English poet, born at Exeter in 1671, and educated at Oxford, where he graduated in 1707. He got two livings in Herts, and was intimate with bishop Atterbury; on which account he was taken up, and his papers were searched, when the doctor was sent to the tower; but Yalden was soon discharged. He died in 1736. His poems were printed in 1 vol. 8vo.

**YALOFFS**. See *BARSALLI* and *JALOFFS*.

**YAM**, in botany. See *DIOSCORIA*.

**YAMBOO**. See *EUGENIA*.

**YANG-TCHEOU**, a city of China, of the first rank, in Kiang-nan, situated on the bank of the Royal Canal, where it crosses the great river Yangtse-kiang. It carries on a great trade, and is rendered extremely populous by the sale and distribution of the salt that is made on the sea coasts of this jurisdiction. 485 miles S. S. E. of Peking.

**YANG-TSE-KIANG**, a river of China, the largest of that empire, and one of the noblest in the world. Its source is described by Chinese maps as situated among the mountains of Thibet. Thence it flows, during the first part of its course, along the borders of China; after which it enters the empire, and passes, in a westerly course, through Sechuen, Houquang, and Kiangnan, the grand central provinces; among which it diffuses commerce and fertility. In passing the great city of Nan-king, it becomes truly magnificent, from the fleets of vessels of every description moving to and fro. About 120 miles to the east of Nanking, it falls into the gulf of Tsongning, in the Eastern

SEA.

**YANVOS**. See *YAYVOS*.



YAO, or YAU, the first emperor of China. See CHINA.

YARCUND, a city of Cashgar, in that part of Chinese Tartary which goes commonly by the name of Little Bucharia. It is situated on the eastern side of that range of mountains which extends northwards from the Himalah, and divides Chinese from Independent Tartary. Being placed at the point where those mountains are usually crossed by the caravans, it has become a kind of emporium for the inland trade of Asia.

YARD, *n. s.* } Sax. *geard*; Goth. and Swed.

YARD'WAND, } *gard*. Inclosed ground adjoining a house; a measure of length; a pole; support of a sail: a yardwand is a measure of a yard in length.

A peer, a counsellor, and a judge, are not to be measured by the common *yard*, but by the pole of special grace.

*Bacon.*

One of the lions leaped down into a neighbour's *yard*, where, nothing regarding the crowing of the cocks, he eat them up.

*Brown.*

The arms, spread cross in a straight line, and measured from one end of the long finger on one hand to that of the other, made a measure equal to the stature, and is named a fathom. Half of that, viz. from the end of the long finger of either arm, so spread, to the middle of the breast, is with us called a *yard*. *Holder.*

A breeze from shore began to blow;

The sailors ship their oars, and cease to row;

Then hoist their *yards* a-trip, and all their sails,

Let fall to court the wind.

*Dryden.*

Xanthus one day sent *Æsop* into the *yard*, and bade him look well about him.

*L'Estrange.*

An aqueduct of a Gothic structure, that conveys from Mount St. Francis to Spoleto, from the foundation of the lowest arch to the top, is two hundred and thirty *yards*.

*Addison.*

All the revolutions in nature can give it nothing more than different degrees of dimensions. What affinity has thinking with such attributes? no more than there is between a syllogism and a *yardwand*. *Collier.*

YARD, in husbandry. See GARDENINE.

The YARD is used in Britain and Spain, chiefly to measure cloth, stuffs, &c.

YARD of a SHIP, a long piece of timber suspended upon the masts of a ship, to extend the sails to the wind. See MAST and SHIP-SAIL. All yards are either square or laten; the former are suspended across the masts at right angles, and the latter obliquely. The square yards are nearly of a cylindrical surface. They taper from the middle, which is called the slings, towards the extremities, which are termed the yard-arms; and the distance between the slings and the yard-arms on each side is by the artificers divided into quarters, which are distinguished into the first, second, third quarters, and yard-arms. The middle quarters are formed into eight squares, and each of the end parts is figured like the frustum of a cone. All the yards of a ship are square except that of the mizen.

YARD-ARM is that half of the yard that is on either side of the mast, when it lies athwart the ship.

YARE, *adj.* } Sax. *gearpe*. Ready; dex-

YARELY, *adv.* } terous; eager: the adverb corresponds. Obsolete.

I do desire to learn, Sir; and I hope, if you have occasion to use me for your turn, you shall find me *yare*.

*Shakspeare.*

The silken tackles

Swell with the touches of those flower-soft hands,

That *yarely* frame the office.

*Id.*

YARE, among sailors, implies quick; as, be

yare at the helm; that is, be quick and expeditious at the helm. It is sometimes also used for bright by seamen; as, to keep his arms yare; that is, to keep them clean and bright.

YARMOUTH, a sea-port, Post, and market-town, in the parish of West Medina, Isle of Wight, Hants. ten miles N. N. W. of Newport, and 100 south-west of London. The town stands on a bank sloping to the sea, and has evident traces of having been much larger than at present. The castle was built by Henry VIII., on the site of an ancient church. Market on Friday.

YARMOUTH, commonly called Great Yarmouth, a sea-port, borough, and parish, in East-Flegg hundred, Norfolk, situate on a peninsula, at the eastern extremity of the county, twenty-two miles east by south of Norwich, and 124 north-east of London. It is encompassed on the south and east by the sea; on the north by the main land, and on the west by the Yare, over which is a handsome drawbridge, connecting it with Suffolk; it extends more than a mile in length, and half a mile in breadth; containing four principal streets running from north to south, and 156 narrow lanes, or rows, intersecting them. It is flanked with a wall, with ten gates and sixteen towers. The church, dedicated to St. Nicholas, is a stately pile 250 feet long, and, including the aisles, 108 in breadth; its wooden spire is now taken down. Near the centre of the town is a beautiful chapel of ease, dedicated to St. George. The quay, in the centre of which is the town-hall, forms a fashionable and delightful promenade to this much frequented watering-place; it is nearly a mile and a quarter in length, and in some parts 150 yards wide; from the bridge to the south gate it is decorated with a fine range of buildings, among which the assembly-rooms make a conspicuous figure. The theatre, erected in 1778, is a neat edifice; here is also a bowling green. The bath-house was erected in 1759; it stands on the beach, which is a sinking sand, three furlongs from the chapel. On each side of the vestibule are baths appropriated to the separate uses of ladies and gentlemen. The sea-water is raised every tide by a horse-mill into a reservoir, about fifty yards from the baths, whence it is conveyed by pipes to the baths. Here are also commodious bathing-machines, but the sand renders them unpleasant of access. Adjoining the north end of the bath-house a public room was erected in 1788, for a tea and coffee room. The jetty, close to the bath-house, is 110 paces long, and forms an agreeable walk after bathing. The fishermen's hospital is of a quadrangular form, containing twenty rooms on the ground-floor. The hospital school was founded and is supported by subscription. Here also is a charity school for 100 boys and girls. The market-place forms a handsome area.

The situation of this town is very favorable to commerce, and, besides fishing-smacks, there are upwards of 300 ships belonging to the port; but the most considerable employment here is its extensive fishery, there being 70,000 barrels of herrings generally taken and cured here in the year. The season commences at Michaelmas and lasts till the end of October. It has also a considerable coal trade.

The harbour is convenient, being protected by a pier, provided with two light houses, and defended by two bastions, on a mural construction, and two smaller ones. Large sums of money are annually

expended in clearing it. Here are barracks for the accommodation of 1000 men, and an armory. Among the peculiarities of this place is the use of a low narrow cart, drawn by a single horse and well adapted for the conveying of goods through the narrow lanes of this town; but others, on the same construction, more elegantly made, are let for airing in the neighbourhood, and are called Yarmouth coaches. A sessions is annually held here in the month of September, for the trial of offences committed within the jurisdiction of the corporation. They have also a court of admiralty, for the protection of marine property; and a court for the recovery of debts above £2 and under £10, from the award of which there is no appeal. The corporation consists of a mayor, eighteen aldermen, a recorder, and thirty-six common-councilmen. It returns two members to parliament, chosen by the burgesses at large; and the returning officer is the mayor. Market on Saturday, well supplied, and a small one on Wednesday.

YARN, *n. s.* Sax. *gearn*. Spun wool; woollen thread.

You would be another Penelope; yet they say all the *yarn* she spun in Ulysses's absence did but fill Ithaca full of moths. *Shakspeare.*

It may be useful for the reeling of *yarn*. *Wilkins.*

*Yarn* is a commodity very proper to this country, which of all others ought to be most encouraged.

*Temple.*

The rest among the rubbish may they sweep,  
Or add it to the *yarn* of some old miser's heap. *Dryd.*

YARRANTON (Andrew), the inventor of tinplate, or white iron. See WHITE IRON.

YARROW, a celebrated pastoral stream of Scotland, in Selkirkshire, which rises at a place called Yarrow Cleugh, very near the source of Moffat water; and running east a few miles, forms a beautiful lake called the loch of the Lows, which discharges its waters, after a course of 100 yards, into St. Mary's Loch, from which it issues; and, after a course of about sixteen miles through the ancient district of Etterick forest, joins its waters to the Etterick, two miles above Selkirk.

YARROW, in botany. See *ACHILEA*, and *RURAL ECONOMY*.

YAU, or YAO, a celebrated emperor of China; contemporary with Joshua. See *CHINA*.

YAWN, *v. n. & n. s.* Sax. *geonan*. To gape; oscitate; have the mouth opened involuntarily; to open wide; express desire by yawning: the noun substantive corresponds.

He shall cast up the wealth by him devoured,  
Like vomit from his yawning entrails poured. *Sandys.*

The chiefest thing at which lay-reformers *yawn* is, that the clergy may, through conformity in condition, be poor as the apostles were. *Hooker.*

It's now the very witching time of night,  
When churchyards *yawn*. *Shakspeare.*

The sad-eyed justice, with his surly hum,  
Delivering o'er to executors pale  
The lazy yawning drone. *Id.*

In yawning, the inner parchment of the ear is extended. When a man *yawneth*, he cannot hear so well. *Bacon.*

Hell at last  
Yawning received them whole, and on them closed. *Milton.*

At length shook off himself, and asked the dame,  
And asking *yawned*, for what intent she came? *Dryd.*

Hence to the borders of the marsh they go,  
That mingles with the baleful streams below;

And sometimes with a mighty *yawn*, 'tis said,  
Opens a dismal passage to the dead. *Addison.*

Thee, Paridel, she marked thee there,  
Stretched on the rack of a too easy chair;  
And heard thy everlasting *yawn* confess  
The pains and penalties of idleness. *Pope*

YAWNING is an involuntary opening of the mouth, generally produced by weariness or an inclination to sleep. Yawning, according to Boerhaave, is performed by expanding at one and the same time all the muscles capable of spontaneous motion; by greatly extending the lungs; by drawing in gradually and slowly a large quantity of air; and gradually and slowly drawing it out after it has been retained for some time and rarefied; and then restoring the muscles to their natural state. Hence the effect of yawning is to move, accelerate, and equally distribute all the humors through all the vessels of the body, and consequently to qualify the muscles and organs of sensation for their various functions. When yawning is troublesome, Hippocrates says that long deep respiration, or drawing in the air at long intervals, cures it.

YAWS. See *MEDICINE*, Index.

YAXT, or JAXT. See *JAXT*.

YCA, ICA, or VALVERDE. See *Ica*.

YCLAD, *part.* for clad. Clothed

Her words *yclad* with wisdom's majesty. *Shakspeare.*

YCLEPED', *part. pass.* of clepe, to call; Sax. clepan, with the increasing particle *y*, used in the old English, in the preterites and participles, from the Sax. *ge*. Called; termed; named.

But come thou goddess fair and free,

In heaven *yclad* Euphrosyne,  
And by men heart-easing mirth. *Milton.*

YE. The nominative plural of thou.

Ye are they which justify yourselves. *Luke* xvi. 15.

YE, EX, or Y. See *Y*.

YEA, *adv.* Sax. *ea*, or *gea*; Dan. Belg. and Teut. *ja*. Yes. A particle of affirmation; meaning, it is so, or, is it so? and of emphasis, as not only so; but more than so.

Yea, hath God said, Ye shall not eat of every tree in the garden? *Genesis* iii. 1.

Let your conversation be *yea*, *yea*; nay, nay. *Matthew* v.

I am weary; *yea*, my memory is tired. *Shakspeare.*

From these Philippinæ are brought costly spices, *yea*, and gold too. *Abbot.*

All the promises of God are *yea*, and amen; that is, are verified, which is the importance of *yea*; and confirmed, which is meant by amen, into an immutability. *Hammond.*

Why do disputes in wrangling spend the day,  
Whilst one says only *yea*, and t'other nay? *Denham.*

They durst abide  
Jehovah thundering out of Sion, throned  
Between the cherubim; *yea*, often placed  
Within his sanctuary itself their shrines. *Milton.*

YEAD or YEDE, *v. n.* *Pret.* yode. Corruptly formed from *geod*, the Saxon preterite of *gan*. To go; march. Obsolete.

They wander at will, and stay at pleasure,  
And to their folds *yeade* at their own leisure. *Spenser.*

YEAN, *v. n.* } Saxon *eanan*. To bring  
YEAN'LING, *n. s.* } young; of sheep: *yeanning* is the young produced.

This I scarcely drag along,  
Who *yeanning* on the rocks has left her young. *Dryd.*  
Ewes *yeann* the polled lamb with the least danger. *Mortimer.*



YEAR, *n. s.*

YEAR'LING,

YEAR'LY, *adj. & adv.*

Sax. *geap*. The period of the earth's revolution round the sun: in the plural, old age: year is sometimes used corruptly for the plural, as 'forty year': yearling, a year old: yearly, annual; lasting a year; once a year.

See the minutes, how they run:

How many make the hour full compleat,  
How many hours bring about the day,  
How many days will finish up the year,  
How many years a mortal man may live. *Shakspeare.*

The yearly course that brings this day about  
Shall never see it but a holiday. *Id.*

Some mumble-news,

That smiles his cheek in years, and knows the trick  
To make my lady laugh when she's disposed,  
Told our intents. *Id.*

He that outlives this day, and sees old age,  
Will yearly on the vigil feast his neighbours,  
And say, To-morrow is St. Crispin. *Id.*

There died also Cecile, mother to king Edward IV.,  
being of extreme years, and who had lived to see three  
princes of her body crowned, and four murdered. *Bacon.*

With the year

Seasons return, but not to me returns  
Day, or the sweet approach of even or morn. *Milton.*

For numerous blessings yearly showered,  
And property with plenty crowned;  
For freedom still maintained alive;  
For these, and more, accept our pious praise. *Dryden.*

He looked in years, yet in his years were seen  
A youthful vigour, and autumnal green. *Id.*

Why the changing oak should shed  
The yearly honour of his stately head;  
Whilst the distinguished yew is ever seen,  
Unchanged his branch, and permanent his green. *Prior.*

A yearling bullock to thy name shall smoke,  
Untamed, unconscious of the galling yoke. *Pope.*

He accepted a curacy of thirty pounds a year. *Swift.*

Not numerous are our joys when life is new,  
And yearly some are falling of the few. *Young.*

YEAR, in astronomy and chronology. See *ASTRONOMY* and *KALENDAR*.

YEAR, ANCIENT EGYPTIAN. The ancient Egyptian year, called also the year of Nabonassar, on account of the epocha of Nabonassar, is the solar year of 365 days, divided into twelve months of thirty days each, besides five intercalary days added at the end. The names, &c., of the months are as follow:—1. Thoth. 2. Paophi. 3. Athyr. 4. Chojac. 5. Tybi. 6. Mecheir. 7. Phamenoth. 8. Pharmuthi. 9. Pachon. 10. Pauni. 11. Epiphi. 12. Mesori; beside the *ἡμεραι επαγομεναι*.

YEAR, ANCIENT GRECIAN. The ancient Greek year was lunar, consisting of twelve months, which at first had thirty days apiece, then alternately thirty and twenty-nine days, computed from the first appearance of the new moon, with the addition of an embolismic month of thirty days every third, fifth, eighth, eleventh, fourteenth, sixteenth, and nineteenth year of a cycle of nineteen years, in order to keep the new and full moons to the same terms or seasons of the year. Their year commenced with that new moon, the full moon of which comes next after the summer solstice. The order, &c., of their months was thus:—1. *Ἑκατομβαιων*, containing twenty-nine days. 2. *Μηναγετωνων*, thirty. 3. *Βονδρομιων*, twenty-nine. 4. *Μαεμακτηριων*, thirty. 5. *Πυανεψιων*, twenty-nine. 6. *Ποσειδειων*, thirty. 7. *Γαμηλιων*, twenty-nine. 8. *Λυδαιστηριων*, thirty. 9. *Ελαφηβολιων*, thirty. 10.

*Μουνυσχιων*, thirty. 11. *Θαργηλιων*, twenty-nine. 12. *Σκιροφοριων*, thirty.

YEAR, ANCIENT JEWISH. The ancient Jewish year is a lunar year, consisting commonly of eleven months, which alternately contain thirty and twenty-nine days. It was made to agree with the solar year, either by the adding of eleven, and sometimes twelve days, at the end of the year, or by an embolismic month. The names and quantities of the months stand thus:—1. Nisan, or Abib, thirty days. 2. Jair, or Zius, twenty-nine. 3. Siban, or Siwan, thirty. 4. Thammuz, or Tammuz, twenty-nine. 5. Ab, thirty. 6. Elul, twenty-nine. 7. Tisri, or Ethanim, thirty. 8. Marchesvan, or Bul, twenty-nine. 9. Cisleu, thirty. 10. Tebeth, twenty-nine. 11. Sabat, or Schebeth, thirty. 12. Adar, in the embolismic year, thirty. Adar, in the common year, was but twenty-nine. Note, in the defective year, Cisleu was only twenty-nine days; and, in the redundant year, Marchesvan was thirty.

YEAR, ANCIENT ROMAN. The ancient Roman year was the lunar year, which, as first settled by Romulus, consisted only of ten months:—viz. 1. March, containing thirty-one days. 2. April, thirty. 3. May, thirty-one. 4. June, thirty. 5. Quintilis, thirty-one. 6. Sextilis, thirty. 7. September, thirty. 8. October, thirty-one. 9. November, thirty. 10. December, thirty. In all 304 days, which came short of the true lunar year by fifty days, and of the solar by sixty-one days. Numa Pompilius corrected this irregular constitution of the year, and composed two new months, January and February, of the days that were used to be added to the former year.

YEAR, ARABIC, MAHOMETAN, TURKISH, &c. The Arabic, Mahometan, and Turkish year, called also the year of the Hegira, is a lunar year, equal to 354 days, eight hours, and forty-eight minutes, and consists of twelve months, which contain alternately thirty and twenty-nine days.

YEAR, HINDOO. The Hindoo year differs from all these, and is indeed different in different provinces of India. The best account that we have of it is by Mr. Cavendish, in the Philosophical Transactions of the Royal Society of London, 1792. 'Before I speak of the civil year of the Hindoos (says this writer) it will be proper to say a few words of the astronomical year by which it is regulated:—1. The astronomical year begins at the instant when the sun comes to the first point of the Hindoo zodiac. In the year 1792 it began on April 9th, at 22 h. 14' after midnight of their first meridian, which is about 41' of time west of Calcutta; but, according to Mr. Gentili's account of the Indian astronomy, it began 3 h. 24' earlier. As this year, however, is longer than ours, its commencement falls continually later, in respect of the Julian year, by 50' 26" in four years. This year is divided into twelve months, each of which corresponds to the time of the sun's stay in some sign; so that they are of different lengths, and seldom begin at the beginning of a day. The civil day in all parts of India begins at sunrise, and is divided into sixty parts called dandas, which are again divided into sixty palas. In those parts of India in which the Benares almanac, or as it is there called patras, is used, the civil year is lunisolar, consisting of twelve lunar months, with an intercalary month inserted between them occasionally. It begins at the day after the new moon next before the beginning of the solar year. The lunar month



is divided into thirty parts called teethees; these are not strictly of the same length, but are equal to the time in which the moon's true motion from the sun is  $12^\circ$ . From the new moon till the moon arrives at  $12^\circ$  distance from the sun is called the first teethee; from thence till it comes to  $24^\circ$  is called the second teethee; and so on till the full moon, after which the teethees return in the same order as before. The civil day is constantly called by the number of that teethee which expires during the course of the day; and, as the teethee is sometimes longer than one day, a day sometimes occurs in which no teethee ends. When this is the case the day is called by the same number as the following day; so that two successive days go by the same name. It oftener happens, however, that two teethees end on the same day; in which case the number of the first of them gives name to the day, and there is no day called by the number of the last, so that a gap is made in the order of the days. In the latter part of the month the days are counted from the full moon, in the same manner as in the former part they are counted from the new moon; only the last day, or that on which the new moon happens, is called the 30th instead of the 15th. It appears, therefore, that each half of the month constantly begins on the day after that on which the new or full moon falls; only sometimes the half month begins with the second day, the first being wanting. This manner of counting the days is sufficiently intricate, but that of counting the months is still more so. The civil year begins at the day after the new moon; and, in the years which have an intercalary month, this month begins at the day after the new moon; but notwithstanding this, the ordinary civil month begins at the day after the full moon. To make their method more intelligible we will call the time from new moon to new moon the natural month. The civil month Visakha, the first in the Hindoo kalendar, which extends from the 9th of our April to the 10th of May, begins at the day after that full moon which is nearest to the instant at which the sun enters Mesha, the first in order of the Indian signs, whether before or after; however, it is not always accurately the nearest. A consequence of this way of counting the months is, that the first half of Chitra, the last month in the Indian kalendar, extending from March the 10th to April the 9th, fall in one year, and the latter half in the following year; and, whenever the sun enters no sign during a natural month, this month is intercalary. The number of days in the month varies from twenty-nine to thirty-two. Indeed the Hindoo months, both solar and lunar, consist neither of a determinate number of days, nor are regulated by any cycle, but depend solely on the motions of the sun and moon; so that a Hindoo has no way of knowing what day of the month it is but by consulting his almanac; and, what is more, the month ought sometimes to begin on different days in different places, on account of the difference in latitude and longitude, not to mention the difference which may arise from errors in computation. This mode of computing time must be attended with many inconveniences; but in the transactions of civil life the Hindoos do not much regard it. A disagreement, however, in the computation of the teethee, which sometimes also happens, occasions no small perplexity; because by the teethees, or lunar days, are regulated most of their religious festivals. Every

Brahmin in charge of a temple, or whose duty it is to announce the times for the observance of religious ceremonies, is therefore furnished with one of their almanacs; and if he be an astronomer, he makes such corrections in it as the difference of latitude and longitude render necessary.

**YEAR, JELLALEAN**, is a correction of the former Persian year, by sultan Jellaleddan, in 1089. See **KALENDAR**.

**YEAR, PERSIAN**. The Persian year is a solar year of about 365 days; consisting of twelve months of thirty days each, with five intercalary days added at the end.

**YEARN, v. n., v. a., & n. s.** Sax. *eapnan*. To feel great internal uneasiness. In Spenser it is sometimes earn, and used for desire, or the pain of longing; it now implies tenderness or pity, but is not a common word: the noun substantive corresponds.

Joseph made haste; for his bowels did yearn upon his brother; and he sought where to weep, and he entered into his chamber. *Gen. xliii. 30.*

He despised to tread in due degree,  
But chafed, and foamed, with courage fierce and stern,

And to be eased of that base burden still did yearn. *Spenser.*

Falstaff, he is dean,  
And we must yearn therefore. *Shakespeare.*

She laments for it, that it would  
Yearn your heart to see it. *Id.*

Yet for all the yearning pain  
Ye have suffered for their loves, in vain,  
I fear they'll prove so nice and coy,  
To have, and t' hold, and to enjoy. *Hudibras.*

When the fair Leucothoe he spied,  
To check his steeds impatient Phœbus yearned,  
Though all the world was in his course concerned. *Waller.*

Where our heart does but relent, his melts; where  
our eye pities, his bowels yearn. *South.*

Your mother's heart yearns towards you. *Addison.*

At beholding the miseries of others, they find such  
yearnings in their bowels, and such sensible commo-  
tions raised in their breasts, as they can by no means  
satisfy. *Calamy.*

**YEDDO, or JEDDO**, a city of Japan, which may properly be considered as the capital of the empire. It is situated at the head of a great bay, and at the mouth of a large river of the same name. Meaco, the residence of the spiritual emperor, was the original capital, and is still in some degree considered as such; but since the Kubo Sama, the civil and military ruler, has fixed his residence at Veddo, that city has far eclipsed the other. It contains many splendid palaces, which stand by themselves, surrounded by large court-yards and stately gates; and though built only of wood, and one story high, are distinguished by varnished staircases, large and finely ornamented apartments. All these are eclipsed, however, by the palace of the emperor, which may more properly be called a great fortified city, situated in the heart of the general city, said to be five leagues in circumference, surrounded with walls and ditches, and containing several fortified buildings. The outer part is composed of streets, containing many palaces, in which reside the princes of the blood, ministers, and other public functionaries. The centre of the enclosure contains the palace or residence of the emperor. Unlike all the other Japanese structures it is built of free-stone, and surrounded by a wall of the same material without cement. The body of the palace, how-



ever, like other Japanese structures, consists only of one high story. The apartments are spacious : mats are the only furniture used ; so that the palace is distinguished only by their superior number and whiteness. Its chief ornament consists in the walls, which are made of the finest cedar and camphire wood, and often varnished and covered with different figures. Behind the palace are gardens and orchards of great beauty. The city is said to be seven miles long, five broad, and twenty in circumference : it has no walls except those which surround the palace. It is intersected by branches of the river, and by canals, which are crossed by numerous bridges. The houses, with the exception of those which belong to the nobles and clergy, are small and low, composed of wood, paper, and mats. Here, although every house keeps a large tub of water under the roof, and firemen are constantly patrolling the streets, conflagrations often take place to a dreadful extent. One, which occurred in 1703, was so great that 100,000 houses are supposed to have been consumed. Besides being the residence of the monarch, Yeddo is the seat of an extensive commerce, and contains many flourishing manufactures. Long. 140° E., lat. 36° 30' N.

**YELK, n. s.** Sax. *zealepe*, yellow. The yellow part of an egg. Often written, and pronounced *yolk*.

The *yolk* of the egg conducteth little to the generation of the bird, but only to the nourishment of the same : for if a chicken be opened when it is newly hatched, you shall find much of the *yolk* remaining.

*Bacon.*

That a chicken is formed out of the *yolk* of an egg, with some ancient philosophers, the people still opinion.

*Browne.*

All the feathered kind  
From the included *yolk*, not ambient white, arose.

*Dryden.*

**YELL, v. n. & n. s.** To cry out with horror and agony : cry made.

Nor the night raven, that still deadly *yells*,  
Nor grisly vultures, make us once affeared. *Spenser.*

Each new morn,

New widows howl, new orphans cry ; new sorrows  
Strike heaven on the face, that it resounds,  
As if it felt with Scotland, and *yelled* out  
Like syllables of dolour.

*Shakspeare.*

With like tim'rous accent and dire *yell*,  
As when, by night and negligence, the fire  
Is spread in populous cities.

*Id.*

*Yelling* monsters, that with ceaseless cry  
Surround me.

*Milton.*

Hence are heard the groans of ghosts, the pains  
Of sounding lashes, and of dragging chains.  
The Trojan stood astonished at their cries,  
And asked his guide from whence those *yells* arise.

*Dryden.*

Others in frantick mood  
Run howling through the streets ; their hideous *yells*  
Rent the dark welkin.

*Phillips.*

Night-struck fancy dreams the *yelling* ghost.

*Thomson.*

**YELLOW, adj.**

**YEL'LOWBOY, n. s.**

**YEL'LOWISH, adj.**

**YEL'LOWISHNESS, n. s.**

**YEL'LOWNESS,**

**YEL'LOWS.**

yellow-boy is a low name for a gold coin : yellowish, approaching to yellow : the noun substantive corresponding : yellowness, the quality of yellow ; used by Shakspeare for jealousy : the yellows is a disease of horses.

Sax. *zealepe* ; Belg.

*gheletrave*, *geel* ; Ital.

*giallo* ; Goth. *gullig* ;

Goth. *uil* and *ool* is the

sun. Being of a bright

glaring color, as gold :

Only they that come to see a fellow

In a long motley coat, guarded with yellow,  
Will be deceived.

*Shakspeare.*

His horse sped with spavins, and rai'd with the *yel-*  
*lows.*

*Id.*

For I will possess with *yellowness*.

*Id.*

Apples, covered in lime and ashes, were well ma-  
tured, as appeared in the *yellowness* and sweetness.

*Bacon.*

He brought the green ear and the *yellow* sheaf.

*Milton.*

Bruised madder, being drenched with the like alcali-  
zate solution, exchanged its *yellowness* for a redness.

*Boyle.*

Although amber be commonly of a *yellowish* colour,  
yet there is found of it also black, white, brown, green,  
blue, and purple.

*Woodward.*

After a lively orange, followed an intense, bright,  
and copious *yellow*, which was also the best of all the  
*yellows.*

*Newton.*

John did not starve the cause ; there wanted not  
*yellowboys* to fee counsel.

*Arbuthnot.*

Negligent of food,

Scarce seen, he wades among the *yellow* broom.

*Thomson.*

**YELLOW** is one of the original colors of light.

**YELLOW COLORS** for painting. See **CHEMISTRY**,  
**COLOR**, and **COLOR MAKING**.

**YELLOW, DYEING OF.** See **DYEING**.

**YELLOW EARTH**, in mineralogy. Color ochre  
yellow. Massive. Dull. Fracture slaty or earthy.  
Streak somewhat shining. Opaque. Soils slightly.  
Soft. Easily frangible. Adheres to the tongue.  
Feels rather greasy. Specific gravity 2.24. Before  
the blowpipe it is converted into a black and  
shining enamel. Its constituents are silica 92,  
alumina 2, lime 3, iron 3.—Merat-Guillot. It is  
found at Wehraw in Upper Lusatia, where it is  
associated with clay and clay-ironstone. When  
burnt it is sold by the Dutch as a pigment under  
the name of English red. It was used as a yellow  
paint by the ancients.

**YELLOW FEVER.** See **MEDICINE**.

**YELLOW HAMMER.** See **EMBERIZA**.

**YELLOW, NEAPOLITAN, or NAPLES**, a beautiful  
color much used by painters, formerly thought to  
be prepared from arsenic, but now discovered to  
have lead for its basis.

**YELLOW WEED**, in botany. See **RESEDA**.

**YELLOWSTONE**, or Rochejaune, or Jaun, a  
river of North America, which rises from lake  
Eustis in the Rocky Mountains, and after an  
E. N. E. course of about 1100 miles joins the Mis-  
souri 1880 miles from the Mississippi. This river  
is nearly or quite as large as the other branch,  
which retains the name of Missouri. Its principal  
branches are Bighorn and Tongue rivers. Captain  
Clark, the associate of captain Lewis, descended  
this river on his return from the Pacific Ocean.  
He found it deep, rapid, and navigable from the  
place where he struck to its mouth, a distance of  
850 miles. On the 30th of August, 1818, a batta-  
lion of the rifle regiment, commanded by colonel  
Talbot Chambers, consisting of 350, embarked at  
Belle Fontaine on an expedition up the Missouri,  
with a view to establish a fort at the mouth of the  
Yellowstone.

**YELP, v. n.** Sax. *zealpan*. To bark as a  
beagle-hound after his prey.

A little herd of England's tim'rous deer

Mazed with a *yelping* kennel of French curs. *Shaksp.*

**YEMEN**, a country of Arabia, forming the south-  
eastern division of that part of Asia situated partly

upon the Red Sea, and partly on the Indian Ocean. It was celebrated by the ancients under the flattering title of The Happy Arabia, but is by no means exempted from that curse of aridity under which Arabia generally suffers; yet its lower declivities are covered with trees and aromatic shrubs; and the mountain chains are divided by fine valleys, which, being watered by numerous streams, can be advantageously cultivated.

This is one of the few parts of Arabia which have been formed into a considerable and monarchical state. It is subject to a sovereign, who assumes the modest title of Imam, or doctor, but exercises over his subjects an authority nearly absolute. Sana is the capital.

YEO'MAN, *n. s.* } Sax. *geoman*. Frisick *ge-*  
YEO'MANNY. } *man*, a villager.—Junius. A man of a small estate in land; a farmer; a gentleman farmer; a title given to soldiers and superior servants: the collective body of yeomen.

A jolly *yeoman*, marshal of the hall,  
Whose name was Appetite, he did bestow  
Both guests and meats.

Spenser

You, good *yeomen*,  
Whose limbs were being in England, shew us here  
The mettle of your pasture.

Shakespeare.

He instituted, for the security of his person, a band of fifty archers, under a captain, to attend him, by the name of *yeomen* of his guard.

Bacon.

This did amortize a great part of the lands of the kingdom unto the hold and occupation of the *yeomanry*, or middle people, of a condition between gentlemen and cottagers.

Id.

The' appointment for the ensuing night he heard;  
And therefore in the cavern had prepared  
Two brawny *yeomen* of his trusty guard.

Dryden.

Gentlemen should use their children as the honest farmers and substantial *yeomen* do theirs.

Locke.

He that has a spaniel by his side is a *yeoman* of about one hundred pounds a year, an honest man; he is just qualified to kill an hare.

Addison.

At Windsor St. John whispers me i' the ear;  
The waiters stand in ranks, the *yeomen* cry  
Make room! as if a duke were passing by.

Swift.

YEOVIL, a market-town in Stone hundred, Somersetshire, near the river Yeo, or Ivil, five miles west of Sherborne, and 121 W. S. W. of London. It consists of upwards of twenty streets and lanes, some of which are wide and open, with the houses well built of free-stone and brick: the church is a fine old Gothic structure, with a high tower, containing six bells. Four classes of dissenters have chapels in this town. The market-house is an extensive building, supported by stone pillars. This town was formerly noted for its manufacture of woollen cloth; but its principal trade now is leather gloves. Market on Friday.

YERGHEN. See YARKAN.

YERK, *v. a.* The same with JERK, which see.  
To throw out or move with a spring.

Their wounded steeds  
Fret fetlock deep in gore, and with wild rage  
Yerk out their armed heels at their dead masters.

Shakespeare.

YES, *adv.* Sax. *gîre*. A term of affirmation; the affirmative particle opposed to no; also of emphasis, like yea.

Pray, Madam, are you married?—Yes.

More.

Yes, you despise the man to books confined,  
Who from his study rails at human kind,  
Though what he learns he speaks.

Pope.

This was a fit speech for a general in the head of an army, when going to battle: yes, and it is no less fit

speech in the head of a council, upon a deliberation of entrance into a war.

Bacon.

YEST, *n. s.* } Sax. *gezt*. The foam, spume,  
YEST'Y, *adj.* } or flower of beer in fermentation:  
barm; foam; froth: the adjective corresponding.

Though you untie the winds, and let them fight  
Against the churches; though the *yeasty* waves  
Confound and swallow navigation up.

Shakespeare.

Yeast and outward means do fail,  
And have no power to work on ale.

Hudibras

When drays bound high, then never cross behind,  
Where bubbling *yeast* is blown by gusts of wind.

Gay.

YEST, or YEAST, a head or scum rising upon beer or ale while working or fermenting in the vat. See BREWING. It is used for a leaven or ferment in the baking of bread, as serving to swell or puff it up very considerably in a little time, and to make it much lighter, softer, and more delicate. See BAKING, BARM, and BREAD. An artificial yeast, by which good bread may be made without the assistance of any other ferment, is thus prepared:—Boil flour and water together to the consistence of treacle, and when the mixture is cold saturate it with fixed air. Pour the mixture thus saturated into one or more large bottles or narrow mouthed jars; cover it over loosely with paper, and upon that lay a slate or board with a weight to keep it steady. Place the vessel in a situation where the thermometer will stand from 70° to 80°, and stir up the mixture two or three times in twenty-four hours. In about two days such a degree of fermentation will have taken place as to give the mixture the appearance of yeast. With the yeast in this state, and before it has acquired a thoroughly vinous smell, mix the quantity of flour intended for bread in the proportion of six pounds of flour to a quart of the yeast, and a sufficient portion of warm water. Knead them well together in a proper vessel, and covering it with a cloth let the dough stand for twelve hours, or till it appears to be sufficiently fermented, in the forementioned degree of warmth. It is then to be formed into loaves and baked. Mr. Henry adds that perhaps the yeast would be more perfect if a decoction of malt were used instead of simple water. It has lately been discovered that a decoction of malt alone, without any addition, will produce a yeast proper enough for the purpose of brewing. This discovery was made by Joseph Senyor, servant of the Rev. Mr. Mason of Aston near Rotherham; and he received for it a reward of £20 from the Society for Promoting Arts, Manufactures, and Commerce. The process is as follows:—Procure three earthen or wooden vessels of different sizes and apertures, one capable of holding two quarts, the other three or four, and the third five or six: boil a quarter of a peck of malt for about eight or ten minutes in three pints of water; and, when a quart is poured off from the grains, let it stand in the first or smaller vessel, in a cool place, till not quite cold, but retaining that degree of heat which the brewers usually find to be proper when they begin to work their liquor. Then remove the vessel into some warm situation near a fire, where the thermometer stands between 70° and 80° Fahrenheit, and there let it remain till the fermentation begins, which will be plainly perceived within thirty hours: add then two quarts more of a like decoction of malt, when cool, as the first was; and mix the whole in the second or larger vessel, and stir it well in



which must be repeated in the usual way as it rises in a common vat: then add a still greater quantity of the same decoction, to be worked in the largest vessel, which will produce yeast enough for a brewing of forty gallons. Common ale yeast may be kept fresh and fit for use several months by the following method:—Put a quantity of it into a close canvas bag, and gently squeeze out the moisture in a screw-press till the remaining matter be as firm and stiff as clay. In this state it may be close packed up in a tight cask for securing it from the air; and will keep fresh, sound, and fit for use, for a long time. This is a secret that might be of great use to the brewers and distillers, who, though they employ very large quantities of yeast, seem to know no method of preserving it, or raising nurseries of it, for want of which they sustain a very considerable loss; whereas the brewers in Flanders make a very great advantage of supplying the malt distillers of Holland with yeast, which is rendered lasting and fit for carriage by this easy expedient.

YESTER, *adj.* Sax. *gertzen*; Belg. *ghister*; Lat. *hesternus*. Being next before the present day. Not often used but in composition with another word, as day or night. See below.

Love might as well be sowed upon our sands,  
As in a breast so barren:  
To love an enemy, the only one  
Remaining too, whom *yester* sun beheld  
Mustering her charms. *Dryden*.

YESTERDAY, *n. s. & adv.* } Saxon *gīrtan-*  
YESTERNIGHT. } *begs*. See YESTER.  
The day last past; on the day next before to-day:  
*yesternight* corresponds.

We are but of *yesterday*, and know nothing, because  
our days upon earth are a shadow. *Job viii. 9*.

To-morrow, and to-morrow, and to-morrow,  
Creeps in this petty pace from day to day,  
To the last syllable of recorded time;  
And all our *yesterdays* have lighted fools  
The way to dusty death. *Shakespeare*.

Eleven hours I've spent to write it over;  
For *yesternight* by Catesby was it sent me. *Id.*  
Martius gave us *yesterday* a representation of the  
empire of the Turks, with no small vigour of words. *Bacon*.

The distribution of this conference was made by En-  
polis *yesternight*. *Id.*

If *yesterday* could be recalled again,  
Even now would I conclude my happy reign. *Dryden*.  
Mrs. Simper sends complaints in your *yesterday's*  
Spectator. *Addison*.

Naked from the womb  
We *yesterday* came forth, and in the tomb  
Naked again we must to-morrow lie;  
Born to lament, to labour, and to die. *Prior*.

YET, *conj. & adv.* Sax. *ȝȳt*, *ȝet*, *ȝeta*. Ne-  
vertheless; notwithstanding; however: beside;  
still; again; at least; still; even; hitherto.

Hope beginning here, with a trembling expectation  
of things far removed, and as *yet* but only heard of,  
endeth with real and actual fruition of that which no  
tongue can express. *Hooker*.

If any man neglect his duty, his fault must not be  
ascribed to the rule appointed, neither *yet* to the whole  
church. *Whitgift*.

Men may not too rashly believe the confessions of  
witches, nor *yet* the evidence against them. *Bacon*.  
Thales being asked when a man should marry, said,  
Young men, not *yet*; old men, not at all. *Id.*  
French laws forbid the female reign,  
*Yet* love does them to slavery draw. *Cowley*.

Nor *yet* amidst this joy and brightest morn  
Was absent, after all his mischief done,  
The prince of darkness. *Milton*.

Let virtuoso's in five years be writ,  
*Yet* not one thought accuse thy toil of wit. *Dryden*.

*Yet* a few days, and those which now appear  
In youth and beauty like the blooming year,  
In life's swift scene shall change. *Id.*

Though such men have lived never so much upon  
the reserve, *yet*, if they be observed to have a par-  
ticular fondness for persons noted for any sin, it is ten  
to one but there was a communication in the sin, be-  
fore there was so in affection. *South*.

This furnishes us with *yet* one more reason why our  
Saviour lays such a particular stress on acts of mercy.  
*Atterbury*.

*Yet*, *yet* a moment, one dim ray of light  
Indulge, dread chaos and eternal night. *Pope*.

YETHAN. See YTHAN.

YE'VEEN, for given. Obsolete.

Let that room to my lady be *yeven*,  
She shall be a grace,  
To fill the fourth place,  
And reign with the rest in heaven. *Spenser*.

YEW, *n. s.* } Sax. *ip*; Welsh *yw*. Often  
YEW'EN, *adj.* } written *eugh*; but the former or-  
thography is nearer to the sound and derivation.  
A tree of tough wood, used for bows, and there-  
fore planted in church-yards: yewen is made of  
yew.

His stiff arms to stretch with *eughen* bow,  
And manly legs still passing to and fro. *Hubberd*.

Slips of *yew*,  
Silvered in the moon's eclipse. *Shakespeare*.  
The shooter *eugh*, the broad-leaved sycamore,  
The barren plantane, and the walnut sound;  
The myrrhe, that her foul sin doth still deplore;  
Alder, the owner of all waterish ground. *Fairfax*.

He *drew*,  
And almost joined the horns of the tough *yew*. *Dryden*.

The distinguished *yew* is ever seen,  
Unchanged his branch, and permanent his green. *Prior*.

Yew, in botany. Yew trees are remarkable for  
their duration. There were not many years since  
growing within 300 yards of the old Gothic ruins  
of Fountain's Abbey, near Rippon, in Yorkshire,  
seven very large yew trees, commonly called the  
Seven Sisters, whose exact ages cannot be accu-  
rately ascertained, though tradition says that they  
were standing in the year 1088. It is said also  
that, when the great Fountains' abbey was build-  
ing, which is 700 feet long, and was finished in  
1283, the masons used to work their stones, during  
the hot summers, under the shade of these trees.  
The circumference of the Seven Sisters, when mea-  
sured by a curious traveller, were of the following  
sizes:—the smallest tree, round its body, five yards  
one foot; four others are from five yards and a  
half to seven yards and a half; the sixth is nine  
yards and a half; and the seventh is eleven yards  
one foot seven inches in circumference, being two  
yards ten inches larger than the great yew tree now  
growing in the churchyard at Gresford, in North  
Wales, which is nine yards nine inches. These  
trees are the largest and oldest in the British domi-  
nions. See TAXUS.

YEZDEGERD, or JEZDEGERD, a celebrated  
monarch of Persia, who flourished in the seventh  
century, but was expelled by the Saracens, and  
reigned afterwards in Chorassan. See PERSIA, and  
SARACENS.

**YIECHE**, a kind of jasper. See **Tai-Tong**.

**YIELD**, *v. a. & v. n.* } Sax. *gelban*, to pay; Isl.

**YIELDER**, *n. s.* } *gelda*; Goth. *gialda*. To produce; render; give in return for cultivation or labor; afford; exhibit; permit; surrender (sometimes used with up): as a verb neuter to give up a contest; submit; concede; comply; allow; give place: the noun substantive corresponding.

When thou tillest the ground, it shall not henceforth yield unto thee her strength. *Genesis iv. 12.*

He gathered up his feet into the bed and yielded up the ghost. *Id. xlix. 33.*

With her much fair speech she caused him to yield.

*Proverbs.*

He not yielding over to old age his country delights, especially of hawking, was, at that time following a merlin, brought to see this injury offered unto us.

*Sidney.*

The mind of man desireth ever more to know the truth, according to the most infallible certainty which the nature of things can yield.

*Hooker.*

The enemies sometimes offered unto the soldiers, upon the walls, great rewards, if they would yield up the city, and sometimes threatened them as fast.

*Knolles.*

Some guard these traitors to the block of death, Treason's true bed, and yield up of breath.

*Shaksp.*

I see a yielding in the looks of France:

Mark, how they whisper. *Id.*

He makes much kind yelp blood. *Id.*

Often did I strive

To yield the ghost; but still the envious flood

Kept in my soul, and would not let it forth

To find the empty, vast, and wandering air. *Id.*

There could be no secure peace, except the Lacedemonians yielded to those things, which being granted, it would be no longer in their power to hurt the Athenians.

*Bacon.*

If we yield that there is a God, and that this God is almighty and just, it cannot be avoided but that, after this life ended, he administers justice unto men.

*Hakewill.*

He yields not in his fall;

But fighting dies, and dying kills withal. *Daniel.*

No country, for the bigness of it, can be better watered, or yield fairer fruits.

*Haylyn.*

I yield it just, said Adam, and submit.

*Milton.*

All is not lost; immortal hate,

And courage never to submit or yield. *Id.*

They laugh, as if to them I had quitted all,

At random yielded up to their misrule. *Id.*

If the inspiring and expiring organ of any animal be stopt, it suddenly yields to nature, and dies.

*Walton.*

They shew the world that they are not of a yielding temper, which will be wronged or baffled.

*Kettlewell.*

There he saw the fainting Grecians yield,

And here the trembling Trojans quit the field,

Pursued by fierce Achilles. *Dryden.*

Life is but air,

That yields a passage to the whistling sword,

And closes when 'tis gone. *Id.*

If you take the idea of white, which one parcel of snow yielded yesterday to our sight, and another idea of white from another parcel of snow you see to-day, and put them together in your mind, they run into one, and the idea of whiteness is not at all increased.

*Locke.*

All the substances of an animal, fed even with accest substances, yield by fire nothing but alkaline salts.

*Arbutnot.*

Tell me in what more happy fields

The thistle springs, to which the lily yields. *Pope.*

'Tis the pride of man which is the spring of this evil, and an unwillingness to yield up their own opinions.

*Watts.*

**YNCA**, an appellation anciently given to the kings of Peru, and the princes of their blood; the word literally signifying, lord, king, emperor, an royal blood. Pedro de Cieca, in his *Chronicles of Peru*, gives the origin of the incas; and says that that country was for a long time the theatre of all manner of crimes, of war, dissension, and the most dreadful disorders, till at last two brothers appeared, one of whom was called *Mango Capa*; of this person the Peruvians relate many wonderful stories. He built the city of *Cusco*, made laws, established order and harmony by his wise regulations; and he and his descendants took the name of *inca*, which signifies king or great lord. These incas became so powerful that they rendered themselves masters of all the country from *Pasto* to *Chili*, and from the *Maule* on the south to the *Augasmago* on the north, these two rivers forming the bounds of their empire, which extended above 1300 leagues in length. This they enjoyed till the divisions between *Inca Guascar* and *Atabalipa*; which the Spaniards laying hold of, made themselves masters of the country, and destroyed the empire of the incas. See **PERU**.

**YOKE**, *n. s. & v. a.* } Sax. *geoc*; Swed. and

**YOKEFELLOW**, *n. s.* } Dan. *ok*; Goth. *uk*; Mod.

**YOKEMATE**. } Goth. *guk*; Belg. *juk*; Fr.

*joug*; Lat. *jugum*. The bandage or frame of wood placed on the neck of draught oxen; any badge of subjection or slavery; a link; chain; band; couple; pair (from the yoke consisting of two parts): to bind or couple together; restrain; confine; enslave: a yokefellow or yokemate is a companion in labor; mate; fellow.

Bring a red heifer, wherein is no blemish, and upon which never came yoke. *Numbers.*

*Yokefellows* in arms,

Let us to France. *Shakspere.*

These are the arms

With which he yoketh your rebellious necks,

Razeth your cities. *Id.*

Cassius, you are yoked with a lamb, That carries anger as the flint bears fire. *Id.*

Our country sinks beneath the yoke; It weeps, it bleeds. *Id.*

Men marry not; but choose rather a libertine single life than to be yoked in marriage. *Id.*

Xerxes, the liberty of Greece to yoke, Over Hellespont bridged his way. *Milton.*

You cannot think me fit

To be the yokefellow of your wit,

Nor take one of so mean deserts

To be the partner of your parts. *Hudibras.*

His hands a hundred yoke of oxen tilled. *Dryden.*

This yoke of marriage from us both remove, Where two are bound to draw, though neither love. *Id.*

Seek not in Latian bands to yoke Our fair Lavinia. *Id.*

This Stetes promised to do, if he alone would yoke together two brazen-hoofed bulls, and, plowing the ground, sow dragon's teeth. *L'Estrange.*

Before Toulon thy yokemate lies, Where all the live-long night he sighs. *Stepney.*

Those who have most distinguished themselves by railing at the sex, very often choose one of the most worthless for a companion and yokefellow. *Spectator.*

A yearling bullock to thy name shall smoke, Untamed, unconscious of the galling yoke. *Pope.*

A yoke of mules outgoes a yoke of oxen, when set to work at the same time; for mules are swifter. *Broome.*

**YOKE**, in Roman antiquity. See **JUGUM**.



YOKE OF LAND, in our ancient customs, was the space which a yoke of oxen, that is, two oxen, may plow in one day.

YOKE ELM, in botany. See *ULMUS*.

YOLK, *n. s.* See *YELK*. The yellow part of an egg.

Nature hath provided a large *yolk* in every egg, a great part whereof remaineth after the chicken is hatched.

*Raay.*

YOLK. See *EGG*. It contains a lymphatic substance mixed with a certain quantity of mild oil, which, on account of this mixture, is soluble in water. When exposed to heat, it assumes a consistency not so hard as the white of the egg; and, when bruised, gives out the oil which it contains. This oil has been used externally as a liniment.

YON, *adj.* } Sax. *geond*; Goth. *aund*. Being  
YOND, }  
YONDER. } at a distance within view.

Good mother do not marry me to *yon* fool. *Shakspeare*.  
The fringed curtains of thine eyes advance,  
And say what thou see'st *yond*. *Id.*

*Yonder* men are too many for an ambassage, and too few for a fight. *Bacon*.

Would you not laugh to meet a great counsellor of state in a flat cap, his gloves under his girdle; and *yond* haberdasher in a velvet gown, furred with sables?

*Ben Jonson.*

*Yon* flow'ry arbors, *yonder* allies green. *Milton*.

*Yonder* are two apple-women scolding.

*Arbuthnot and Pope.*

Let other swains attend the rural care,  
But nigh *yon* mountain let me tune my lays. *Pope*.  
Then hear me, gracious heaven, and grant my pray'r,  
Make *yonder* man the fav'rite of thy care:  
Nourish the plant with thy celestial dew,  
Like manna let it fall, and still be new. *Harte*.

If I were to fall down *yonder* precipice, and break my neck, I should be no more a man of this world.

*Beattie*.

YOND, *adj.* M. Goth. *gaand*, *gaird*. Mad; furious; transported with rage; under alienation of mind. Obsolete.

Then like a lion, which hath long time sought  
His robbed whelps, and at the last them found  
Amongst the shepherd swains, then waxeth wood and  
*yond*;  
So fierce he laid about him. *Spenser*.

Nor those three brethren, Lombards, fierce and *yond*.  
*Fairfax*.

YONNE, a considerable river in the interior of France, rising in the department of the Nievre, near Chateau Chinon, and after flowing more than 100 miles, falls, near Montereauault Yonne, into the Seine.

YONNE, a department in the interior of France, situated nearly half way between Paris and the frontier of Switzerland. Its extent, equal to two of our larger counties, is about 2900 square miles; its population nearly 330,000. Its surface consists, in general, of undulating plains, traversed in the south-west by a chain of hills of no great height. The principal river is the Yonne. The climate is temperate, and of sufficient warmth for the vine: its quality is in general good. Corn, hemp, and flax, are also cultivated.

YORE, or OF YORE, *adv.* Sax. *geozana*; (Goth *ar*; Sax. *ær*, time.) Long; of old time; long ago.

Which, though he hath polluted oft and *yore*,  
Yet I to them for judgment just do fly. *Spenser*.

Thee, high eyed Vesta, long of *yore*  
To solitary Saturn bore. *Milton*.

And seated here a see, his bishoprick of *yore*,  
Upon the farthest point of this unfruitful shore.

*Dryden*.

In times of *yore* an ancient baron lived;  
Great gifts bestowed, and great respect received.

*Prior*.

But Satan now is wiser than of *yore*,  
And tempts by making rich, not making poor. *Pope*.

YORK, city, lies at the point where the three ridings of Yorkshire meet, and is reckoned a county of itself. It is pleasantly situated on the rivers Ouse and Fosse, over the former of which there is a handsome stone bridge of three arches, finished in 1820. The other river is crossed by five bridges, one of them is a spacious stone edifice, recently erected. York is distant from London 199 miles, and contains twenty-eight parishes. Here are twenty-three parish churches, besides the minster or cathedral; this stately structure was not only the largest Gothic church in England, but was allowed to be superior to any in existence, until the incendiary Martin destroyed a considerable part of it: as this however has been completely restored, we shall describe it as it stood before his infamous attempt. The whole length from east to west is 524 feet, breadth of the eastern end 105, and of the western end 109; length of the cross aisles, from north to south, 222; height of the grand lantern tower 213; height of the two western towers 196; height of the nave, or body of the church, ninety-nine: height of the eastern window seventy-five, breadth of the eastern window thirty-two. The west front is adorned with two beautiful towers, between which, over the entrance, is a window of fine painted glass. The south tower contains ten bells, the largest weighing 57 cwt., and on the top of the lantern, in the great middle tower, is a turret containing a small bell. The ascent to the south end of the cross is by three flights of steps; from this entrance there is a beautiful view of the marigold window, on each side of which are two compartments of windows, beautifully painted. The lantern steeple is ornamented with great taste, and has eight windows, forty-five feet high. The choir is divided from the rest of the church by a curious stone screen, over which is the organ, and the front is adorned with statues of all the kings of England, from William the Conqueror to Henry VI. There are thirty-two stalls for the prebendaries, all of fine marble; behind which, on each side of the choir, are curious ranges of carved wood work, adorned with pinnacles. The ascent to the altar is by a flight of sixteen steps, and the whole of the body of the church is paved in Mosaic. Many of the ancient nobility, as well as archbishops, lie buried here, and some of the monuments are magnificent.

The chapter-house is a fine piece of Gothic architecture; it is an octagon, sixty-three feet in diameter, and sixty-seven high, the roof being supported without pillars; the roof is of curious carved work, covered with lead; in the squares of the octagon are windows; some of them beautifully painted. In the vestry-room are several antiquities, particularly a horn, called Ulphus's drinking horn. On the north side of the church stands the library. This beautiful structure appears to have been built in the reign of Richard I., the former edifice having been destroyed by fire. The chapter of York, besides the archbishop, consists of a dean, a precentor, chancellor, subdean, four

archdeacons, twenty-eight prebends, a sub-chancellor, five vicars, seven lay-clerks, six choristers, four vergers, &c. Near the cathedral is St. Michael's-le-Belfry, a curious Gothic structure, containing several handsome monuments: All-Saints' in the Pavement, has a neat octangular steeple: and St. Mary's-Castle-Gate was once admired for its fine spire; a considerable part of it was taken down because of the damage it had sustained by lightning in 1797. St. Margaret's has a singular porch of Saxon architecture. The rest of the churches have nothing to render them remarkable. York is surrounded by walls, and is entered by four principal gates; viz. Micklegate, Bootham-bar, Monk-bar, and Walmgate-bar. In the reign of Edward III. this city was reckoned as a port, and furnished one vessel, with nine men, to his fleet. The streets of York are mostly broad and open; they contain many handsome buildings and are well paved, and lighted with gas. The castle, built by Richard III., is used as a prison; the river Fosse was formerly drawn into a deep moat, entirely around it, the only access being by draw-bridges, the larger of which led to the ancient great gate from the country, on the south, the other from the city, on the north. About the year 1734, the latter was rebuilt in a handsome manner, and is now the only entrance, except a small postern near the mills. The castle walls are 1103 yards in circumference. On the right wing of the area is a spacious prison for debtors. In the left wing is a handsome chapel. The felons' court yard is between the two wings. On the west side of the area is the county hall, erected in 1777: it is a superb building of the Ionic order. The halls for the trial of prisoners and causes at Nisi Prius, are very convenient at the north and south ends, the entrance being by a portico of six columns. In 1780 an additional building was erected on the east side, having several spacious arched cells, for the confinement of prisoners for petty offences; also apartments for hard labor, and distinct hospital rooms. Without the castle gate, at the extent of the city liberties, are erected the city arms, where the sheriffs receive the judges of assize. Adjoining the castle is a high mound, on which stands the shell of a tower, called Clifford's tower, formerly furnished with cannon and a garrison. In York were formerly many convents and hospitals, several of their ruins being often dug up and converted into the foundations of new buildings. Of these ruins, those of St. Mary's abbey, near the cathedral, are the most considerable. At the foot of the bridge is a very convenient and spacious quay, up to which vessels of 120 tons burden can come.

The guildhall was erected in 1446; it is supported on two rows of massive oak pillars. Here are held the courts of justice, and, adjoining, are rooms for the juries, and the lord mayor's justice-room. The windows are of painted glass. In 1728 a stately and convenient structure was erected on the north end of Coney Street, for the residence of the mayor. The assembly house, which is situate in Blake Street, was built on a plan drawn by the earl of Burlington. It is 140 feet long and forty broad, adorned with Corinthian pillars. The theatre is a neat building, erected in 1770. Besides these public buildings, here are two receptacles for lunatics; a county hospital; a city dispensary; a blue coat boys, and gray coat girls charity

school, extensive national schools; alms houses, and other charitable institutions. In this city are two public banks, a savings bank, a subscription library, news rooms, the Yorkshire philosophical society, and a museum for natural and artificial curiosities; also a gaol and a house of correction; with various chapels for Quakers, Roman Catholics, and different classes of dissenters. About one mile south of the city is a good race course, on which there are annual races. At a short distance from the town are extensive cavalry barracks. The new walk, along the banks of the Ouse, is an agreeable promenade, well shaded with lofty trees.

York received its charter from Richard II., and is the only city in England, except London, whose chief magistrate is honored with the title of lord. Its jurisdiction extends over a considerable district, besides the sole conservancy of the rivers Ouse, Wharfe, Derwent, Ayre, Don, and some parts of the Humber. It sends two members to parliament, who are chosen by the freemen in general. The government of the city is vested in the lord mayor, a recorder, twelve aldermen, two sheriffs, eight chamberlains, twenty-four common council men, twenty-two assistants, a town clerk, and other inferior officers. The market places, of which there are two, called the Pavement and Thursday market, are spacious and convenient. The cross in the former is square, with a dome, ascended by winding stairs and supported by twelve Ionic pillars. The other is used on a Saturday as butchers' shambles. On the west side of the market place stands a cross, for a shelter in bad weather. The trade of York is chiefly in gloves, linens, livery lace, glass, and drugs; and printing and bookselling are conducted on a large scale. Markets on Tuesday, Thursday, and Saturday.

YORK, the capital of Upper Canada, is well situated in the township of the same name, on the north-west coast of Lake Ontario, on the north side of an excellent harbour, and very regularly laid out. The plot of ground marked out for it extends about a mile and a half along the harbour, but at present the number of houses does not greatly exceed 300. The public edifices are a government house, house of assembly for the provincial parliament, a church, court house, gaol, and numerous stores and buildings for the various purposes of government. The harbour is nearly circular, and formed by a very narrow peninsula stretching from the western extremity of the township of Scarborough, in an oblique direction, for about six miles, and terminating in a curved point, nearly opposite the garrison; thus enclosing a beautiful basin, about a mile and a half in diameter, capable of containing a great number of vessels, and at the entrance of which ships may lie in safety during the winter.

YORK, a county, Maine, North America, bounded north by Oxford county, north-east by Cumberland county, south-east by the Atlantic, and west by New Hampshire. Chief towns, York and Alfred.

YORK, a sea-port, the capital of York county, Maine; nine miles N. N. E. of Portsmouth, forty-two south-west of Portland, sixty-seven N. N. E. of Boston. It contains a court house and a gaol. The courts for the county are held alternately here and at Alfred. A little business is carried on here in the fisheries. The shipping belonging to this port, in 1816, amounted to 1432 tons.



YORK, a county, south side of Pennsylvania, bounded north-east by the Susquehanna, which separates it from Dauphine and Lancaster counties, south by Maryland, west by Adams county, and N. N. W. by Cumberland county.

YORK, a borough, the capital of York county, Pennsylvania, on Codorus Creek; twenty-two miles W. S. W. of Lancaster, forty-eight north of Baltimore, fifty-two east of Chambersburg, eighty-five west of Philadelphia. It is a pleasant and flourishing town, regularly laid out, and contains a court house, a gaol, a market house, an alms house, a register's office, an Episcopal academy, and eight houses of public worship, one for Episcopalians, one for English Presbyterians, one for German Presbyterians, one for German Lutherans, one for Roman Catholics, one for Methodists, one for Friends, and one for Moravians. A large part of the houses are handsomely built with brick. A number of the public buildings are spacious and elegant. The surrounding country is fertile and very pleasant.

YORKE (Philip), earl of Hardwicke, a celebrated English lawyer, born at Dover, in Kent, in 1699. In 1718 he was elected M. P. for Lewes. After serving as solicitor and attorney general, he was, in 1733, made lord chief justice of the king's bench, and created a British peer. In 1736 he was made lord chancellor, which office he held twenty years. In 1754 he was created earl of Hardwicke. In all his offices he acted so as to acquire the esteem of all parties. He died in 1764.

YORKSHIRE. In delineating the leading features of this very extensive and highly interesting county, it will be necessary to depart, in some degree, from the plan hitherto pursued in the topographical sketches of the other counties. There are, however, a few leading points of a general character which may serve as an introduction to a more detailed description of the respective districts, or ridings, into which Yorkshire is divided. These particulars are chiefly the following:—The city of York, whence the name of the county is derived, was called by the ancient Britons *Cær-Effroc*, by the Romans *Eboracum*, by the Saxons *Ebor-vic*, by Nennius *Cær-Ebrauc*, from the royal founder *Ebraucus*. Camden, however, is of opinion that the word *Eboracum* comes from the river *Ure* (now called the *Ouse*), implying its situation on that river. Hence *Eborac*, or *Eurewic*, by the gradual corruption of language, became *Yorc*, and lastly, *York*. All these various names appear to have been derived from *Eure* the river, and *Wic* the Saxon word for a place of refuge or retreat. The Brigantes possessed this district previous to the Roman invasion; York was their principal city. The Romans included it in the province named *Maxima Cæsariensis*. After their departure Yorkshire became part of the Saxon kingdom of Northumbria. Yorkshire is a maritime county, bounded on the east by the German Ocean; on the south by the river *Humber* (which separates it from Lincolnshire), and by Nottingham and Derbyshire; on the west by a small part of Cheshire, by Lancashire, and Westmorland; and on the north by Westmorland and the county of Durham. This county extends 130 miles in length from east to west, and ninety miles in breadth from north to south; being not less than 460 miles in circumference. Its superficial contents are computed at 3,698,380 acres. It is divided into three ridings,

twenty-eight wapentakes, besides the ainsty of the city of York. There are one city, fifty-nine market-towns, of which thirteen are boroughs. All the ridings are in the province of York, except a small part which belongs to the bishopric of Durham.

*Rivers*.—As some of the principal rivers bound, a few of them intersect the different ridings. Mr. Bigland, in his well-arranged description of this county, in vol. 13 of the *Beauties of England and Wales*, thinks it is best to notice them under the general description. The *Tees* rises in the mountains of Westmorland, and, taking an easterly direction, divides the north riding from the bishopric of Durham through its whole extent. Next in geographical position is the *Swale*, which, rising in the western extremity of the same riding, waters the romantic tract called *Swaledale*; and, passing by Richmond and Catterick, enters the vale of York, and flows in that level country till it receives the *Wiske*, a small river, which, rising near *Osmotherley* at the foot of the moors on the western edge of Cleveland, takes first a northerly, than a westerly direction; and afterwards, turning its course to the south, runs a little to the west of Northallerton and Thirsk, and falls into the *Swale* below *Topcliff*. The *Swale*, after having received this addition to its waters, continues its course till it joins the *Ure* at *Myton*, a few miles below *Borough bridge*. The *Ure* rises in a mountainous tract on the borders of Westmorland. Collecting many tributary streams in its course through the beautiful valley of *Wensleydale*, it flows with a rapid current for many miles within the north riding. Passing *Askrig*, *Middleham*, and *Masham*, it turns south-easterly, flowing by *Rippon* and *Boroughbridge*; soon after which it receives the *Swale*, and, passing on towards York, it takes the name of *Ouse*, from an insignificant rivulet with which it there forms a junction; then, passing on to the village of *Nun-Monkton*, its waters are further increased by those of the *Nid*, which rising among the *Craven Hills* passes by *Ripley* and *Knaresborough*, and falls into the *Ouse* about seven miles above York. The *Ouse* thus augmented flows gently on to York, where it is joined by the *Foss*, a small stream which takes its rise near *Craike Castle*. From York the *Ouse*, with some considerable windings, takes an almost direct southerly course, and becomes the boundary between the east and west ridings. The *Wharfe*, which rises in the *Craven Hills*, and runs south-east almost parallel to the *Nid*, and passes by *Otley*, *Wetherby*, and *Tadcaster*, falls into the *Ouse* at the village of *Nun-Appleton*, about eight miles below York. After this new accession to its waters, the *Ouse* flows south-east with a smooth and broad stream, by *Selby*, and about four or five miles below that town directs its course nearly east, till it receives the *Derwent*. This river, rising in the eastern moorlands in the north riding, within about four miles of the sea, and eight or nine from *Scarborough*, at first takes a southerly direction, through the village of *Hackness*, and along a most picturesque valley to *Ayton*, running in a line almost parallel to the coast till it comes to the foot of the *Wolds*. It then takes a west and afterwards a south-west direction; and having received the *Rye* from *Helmsley*, passes by the town of *Malton*, to which it is navigable from the *Ouse* for vessels of twenty-five tons. It is the boundary between the north and east ridings, from its junction with the small river *Hertford*, till it approaches near *Stamford*



Bridge, where it enters the east riding, within which it falls into the Ouse, near the village of Barmley, about three miles and a half above Howden. After receiving the Derwent, the Ouse continues its course nearly south-east, and within less than a quarter of a mile of Booth ferry is joined by the united Calder and Aire; this junction brings to the Ouse a great accession of waters. The Aire, which is one of the most considerable rivers of Yorkshire, rises in the hills of Craven, about five and a half or six miles north-east of Settle, and runs with a slow stream by Skipton; then winding to the east and south-east, and passing by Leeds, Pontefract, Snailth, and Rawcliff, falls into the Ouse a little below Armin and near Booth Ferry. The Calder rises in Lancashire, and running eastward falls into the Aire about five miles north-east of Wakefield. The Don rises near the borders of Cheshire; and, running south-east to Sheffield, directs its course north-east, passing by Rotherham, Doncaster, and Thorman, falls into the Ouse at Goole. The Tees separates this county from the bishopric of Durham, and falls into the German Ocean in the north-east extremity of the county. The Ribble rises among the Craven Hills; and, running south by Settle and Gisborne, passes into Lancashire. The less considerable streams of this county are the Rother, the Cock, the Washbrook, the Idle, the Hobden, the Want, the Dent, the Kebeck, the Hyde, the Foulness, the Gret, and the Revel. Besides these rivers and streams, the Humber should be particularly noticed. This is in fact only another name for the Ouse, which, having received all the Yorkshire waters, becomes as wide as the Thames at London, and after making a circuit to the south near Swinefleet, takes a north-easterly direction to its confluence with the Trent, from Lincolnshire. Here it takes the name of Humber, and becomes more than a mile in width. At Bromfleet it receives the little river Foulness; then rolling its vast collection of waters eastward in a stream between two and three miles in breadth, washes the town of Hull, where it receives the river of that name, which, rising near the foot of the Wolds, takes a southerly direction at Duffield, and, passing within about half a mile of Beverley, continues its course to Hull, where its mouth forms a secure but contracted haven. A few miles below Hull, and opposite to Hedon and Paul, the Humber takes a direction nearly south-east, and widening to a vast estuary of about six or seven miles in breadth, disembogues itself into the German Ocean. The Humber, resembling (says Mr. Bigland) the trunk of a vast tree, spreading its branches in every direction, commands, by the numerous rivers which it receives, the navigation and trade of a very extensive and commercial part of England. This inland communication is greatly aided by several canals, which will be noticed in describing the different ridings. This county returns thirty members to parliament.

As it is impossible in numerous instances to point out the particular riding which gave birth to certain distinguished natives, it will be proper here to enumerate the most. Thomas Adams, a learned divine. Born at Leeds, 1701. Died 1784.—Dr. John Alcock, a learned prelate. Born at Beverley. Died in 1500.—Albinus Flaccus Alcuinus, one of Bede's pupils, and a learned divine, was born in this county. Charlemagne gave him large abbey. He died 804.—Alredus, Alfredus, or Alneredus, author of a Latin work entitled *Annals of*

the British History from Brutus to Henry I. He was a native of Beverley, and died in 1129.—Eugene Aram, one of the most extraordinary self-taught scholars this or any other county ever produced, and but little inferior to the admirable Crichton, born at Ramskill in Netherdale, in 1704.—William Burton, an eminent physician. Born at Rippon in 1697. Died at York, 1759.—George Calvert (lord Baltimore) was born at Kipling about 1582. He was a wise and prudent statesman in the interest of the Roman Catholics. Died April 15th, 1632.—James Calvert, a nonconformist divine of learning. Born at York, and died in 1698.—James Cawthorne, an agreeable poet. Born at Sheffield, 1721. He was killed by a fall from his horse in 1761.—William Congreve, by some said to have been a native of Ireland, others of Staffordshire, and others of Bardsey near Leeds, in this county. Born in February 1669. He was a distinguished poet and dramatic writer. Died January 19th, 1728-9, and was buried in Westminster Abbey.—Captain James Cook, the celebrated circumnavigator. Born at Marton in Cleveland, 1728; and was killed in one of the South Sea Islands, by an Indian chief, on the 14th of February, 1779.—The learned and pious martyr and prelate, Dr. John Fisher. Born at Beverley in 1459. He was beheaded for not swearing against his conscience in the case of Henry VIII's marriage with Anne Boleyn, on the 23d of June, 1535.—Dr. John Fothergill, a pious and learned physician among the Quakers, was born at Carr End in 1712. Died in 1780.—Dr. Samuel Garth, a celebrated poet and physician, was born in this county, and died in 1719.—Dr. John Green, a learned prelate. Born at or near Hull, about 1706. Died April 25th, 1779.—Dr. Zachary Grey, an ingenious divine, and miscellaneous writer. Born about the year 1687. Died November 25th, 1766. He is chiefly known for his curious notes on Hudibras.—Andrew Marvel, an incorruptible political writer. Born at Hull in 1620. Died 1678.—William Mason, an ingenious poet and divine. Died 1797.—John Metcalf, commonly called Blind Jack of Knaresborough, an ingenious self-taught surveyor of roads, and a guide to strangers. Born in 1717. Died in 1810.—Dr. Conyers Middleton, a learned divine and critic, but not always a fair controversialist, was born at York in 1683.—Matthew Poole, a learned annotator on the Scriptures, was born at York in 1624.—Died in 1679.—Dr. Beilby Porteus, late bishop of London, a learned and most excellent prelate, was a native of this county. He was born in 1731, and died May 14th, 1809.—Dr. John Potter, another learned prelate, and an antiquary of considerable celebrity, was born at Wakefield in 1674. Died 1747.—Dr. Joseph Priestley, born at Field-Head, in the parish of Berstell, March 13th, 1733, O. S. Died in America, February 6th, 1804.—Dr. John Radcliffe, founder of the famous library at Oxford bearing his name. Born at Wakefield, 1650. Died 1714.—Matthew Robinson (Morris) lord Rokeby. Born at York 1713. Died November 30th, 1800.—Dr. John Sharp, Archbishop of York. Born at Bradford in 1644. Died 1713.—Dr. Thomas Sharp, youngest son of the archbishop, a learned and able divine, was also a native of Yorkshire. He died in the year 1758. He was the father of the late learned Granville Sharp, esq.—John Smeaton, an eminent mechanic and engineer. Born at Austhorpe in 1724. Died in 1792.—Dr. John Tillotson, archbishop of Canterbury, one of



the brightest ornaments of the Christian church, was born at Sowerby in 1630, and died in 1694. Obadiah Walker, a learned divine, and tutor to Dr. Radcliffe. Died in 1698.—Dr. George Wallis, a learned physician, poet, and dramatic writer. Born at York in 1740. When he died does not appear.—Brian Walton, bishop of Chester, and editor of the Polyglot Bible, was born in Cleveland 1600. Died 1661.—Thomas Wentworth, earl of Strafford, was a native of this county. He was beheaded on Tower Hill, May 12th, 1641.—John de Wickliffe, styled 'The morning star of the Reformation,' was born in the parish of Wickliffe, died in peace at Lutterworth in 1384, and was buried in his own church. To all these may be added the name of Constantine the Great, who was born at York about the year 274. Died in 337. Gibbon, however, denies this fact respecting the birth-place of Constantine; but it is certain that he assumed the imperial purple at this city.

*Manufactures, trade, commerce.*—This, as applied to Yorkshire, is a most copious and extensive department; too much so, indeed, for the limits of this work to admit of much detail. The woollen manufacture has always been considered the staple trade of the county. This is carried on chiefly in the west riding, which is considerably larger than both the other ridings put conjointly. The cotton business, particularly in calicoes, dimities, thicksets, and other strong goods, is carried on in several parts, but especially on the borders of Lancashire.—The hardware of Sheffield has long been famed for its excellent quality, particularly in cutlery. In that town, indeed, iron and steel are wrought in all the variety of forms; and the manufacture of silver plated goods is carried on to a great extent, and brought to the highest degree of perfection.

*East Riding.*—This is the least of the three grand divisions of Yorkshire. Its name points out the relative situation which it occupies in the county. It is bounded on the north and west by the rivers Hertford and Derwent, which separate it from the north riding as far as the vicinity of Stamford Bridge. An irregular line from the Derwent to the Ouse, commencing about a mile above Stamford Bridge, and joining the latter river about a mile below York, forms the rest of the boundary between the two ridings. From that place the east riding is bounded on the west and south-west by the Ouse, which divides it from the west riding. On the south it is bounded by the Humber, and on the east by the German Ocean. It contains 819,200 acres.

The climate of this district admits of some variations, being colder on the eastern than on the western side of the Wolds, which break the force of the cold and raw winds from the German Ocean. Near the coast the country is exposed to fogs from the sea and the Humber. On the Wolds the air is much sharper, and the snow lies longer, by reason of their elevation. The levels in the western part of the riding enjoy a milder climate, by being sheltered from the easterly winds. This riding admits of almost every variety of soil, from a deep warp to a blowing sand. The Wolds are lofty ranges of hills, extending almost from the northern to the southern limits of the riding. The soil is generally unfavorable to the growth of wood, though attempts at plantations have been made, and some with comparative success. That part of the riding situated north of the Wolds, and extending along

the rivers Hertford and Derwent, from Filey to Malton, is a long narrow strip, a considerable part of which is a light sand, with variation of gravelly loam, strong loam, clay loam, and free loam. The situation of a large part of this division is flat; its soil coarse, with a spongy bottom, and liable to be flooded. The country adjoining the east district, and extending between the Ouse and the foot of the Wolds, and on each side the Derwent to Bubworth, is flat, but with a few gentle swells; the soil contains every kind of loam; a very considerable part consists of a light sandy loam, with an open spongy bottom. The soil of the country adjoining this division, and extending between the Wolds and the Ouse and the Humber to Hull, consists of a strong clay, a free and sandy loam, a small part of which is much lighter than the rest, and has a spongy bottom. Along the side of the Ouse and the Humber there is a considerable quantity of warp land. The soil extending from Hull to near Spurn-head, along the side of the Humber, and nearly adjoining the Patrington road, including the Sunk Island, is mostly warp, generally strong, but some parts intermixed with sand. The country from this last division, extending between the sea and the foot of the Wolds, on each side of the river Hull, consists chiefly of gravel, hazel earth, strong loam, and clay, some parts coarse and thin, with an open bottom. This riding, although it displays a great variety of aspect, is far less conspicuously marked with the bold features of nature than the other parts of the county. Yet some parts are beautifully picturesque, and afford very extensive and even magnificent prospects, especially when the sea or the Humber forms part of the view. The Wolds have just been mentioned. The level tract along the coast may be said to begin at Filey, as has already been intimated. As far however as Bridlington the face of the country is diversified with lofty swells; and the Wolds in some places extend to the coast, which, near the villages of Speeton, Bampton, and Flamborough, rises in cliffs of 100 or even 150 yards in perpendicular height. At Bridlington the county sinks into a flat, which continues for eight or nine miles to the southward, without almost any variation. At about the distance of seven miles to the south of Bridlington begins the wapentake of Holderness, the eastern part of which towards the sea-coast is a finely variegated and fertile country; but the western edge is a fenny tract of about four miles in breadth, extending nearly twenty miles in length to the banks of the Humber. The southern part of Holderness also falls into marshes bordering on that vast estuary; and the county terminates in a point at Spurn-head, the *Ocellum Promontorium* of Ptolemy. In almost every part of Holderness the prospects are rendered more agreeable by a view of the Yorkshire, and in some places of the Lincolnshire Wolds; one or the other of which, and sometimes both, make a beautiful appearance from every elevation.

The ascent to the Wolds is somewhat steep, except on the eastern side, whence they rise in gentle and successive swells, presenting a beautiful aspect towards the flat country. But their height, which in the most elevated parts is not supposed to exceed 600 feet, is inconsiderable when compared with that of the eastern and more especially of the western moors in the north, and the Craven Hills in the west riding. Many parts of the Wolds, how-



ever, afford magnificent and delightful prospects. From their northern edge the vale of the Derwent is extended below like a map, and beyond it the black moors towards Whitby, rising in sublime grandeur. The western hills command an extensive view of the southern part of the vale of York, reaching far beyond that city into the west riding; and the eastern elevation affords a beautiful prospect, in some places of the German Ocean, and in others of Holderness, rising with a very gentle swell from the intervening tract of fenny land called the Carrs. But the southern edge of the Wolds is the most distinguished for the beauty and diversity of its prospects. From several elevated points between the Humber and the high road from Kirk-Ella, by Riplingham, leaving York minster, Howden church, &c., on the west, Flamborough Head, Bridlington priory, Beverley minster, the churches of Hull and Heydon towards the east, may be distinctly seen. From some situations in this tract, the cathedrals of York and Lincoln are said to be at once distinctly visible. The eastern part of this elevated district, skirting the Humber, commands a magnificent view of that vast estuary, extending to the south-east till it vanishes in the horizon. It presents to the eye an interesting spectacle of numerous vessels trading to the port of Hull; while that opulent and commercial town, in its low situation, close to the banks, and surrounded with the masts of its shipping in the docks, seems to rise, like Venice out of the water; and the further distances are filled with a view of the shores of Holderness and Lincolnshire. The western hills, towards Caver, afford a very extensive prospect over an immense level, terminating in the high lands of the west riding faintly appearing in the horizon; and much nearer and more towards the south the large rivers Trent and Ouse, meeting at right angles, and forming a junction where the lofty promontory of Aukborough overlooks the adjacent country, present a beautiful and interesting spectacle. The whole taken together composes a scenery which for beauty and grandeur can scarcely be exceeded. The other natural division of this riding extends from the western foot of the Wolds to the boundaries of the north and west ridings. This tract, which is commonly called the Levels, is every where flat and unpicturesque. The country is here overspread with villages and hamlets, but is in most parts extremely dirty and disagreeable. Throughout the whole of this riding the most extensive and valuable agricultural improvements have been made. Extensive tracts of land, formerly flooded a great part of the year, and producing scarcely any thing but rushes and a little coarse grass, are now covered with abundant crops of grain; and the value of the land has been increased in a tenfold proportion. On the Wolds very great improvements have taken place. The valleys and the declivities of the hills wave with plentiful crops of wheat, where formerly oats and barley only were known. The rabbit warrens are rapidly disappearing, and the breed of sheep, by crosses from the Leicestershire, has been considerably improved. The Levels have also been much improved; and indeed almost every part of the riding has been brought into an excellent state of culture. The productions of this riding, whether animal, vegetable, or mineral, do not appear to possess any very peculiar characteristic.

*North Riding.*—This district is situated between

53° 57' and 54° 38' N. lat., and between 0° 19 and 2° 23' W. long. from Greenwich. It is bounded on the north by the river Tees, which separates it from the county of Durham; on the east and north-east by the German Ocean; on the south-east by the east riding; on the south by the ainsty of York and the west riding; and on the west by the county of Westmorland. The length of the riding from east to west is eighty-three miles, and its breadth from north to south thirty-eight miles; and Mr. Tuke, whom Mr. Bigland justly calls an accurate surveyor, computes its contents at 2048 $\frac{7}{100}$  square miles, or 1,311,187 acres.

The climate of this district is exceedingly various. In the Vale of York the air is mild and temperate, except near the Moors, where the influence of the winds from those mountainous regions is sometimes severely felt. The climate of the Howardian Hills is cold. Rydale and the Marishes, on the skirt of the Derwent, enjoy a mild air; but the dampness of their flats, and a want of a better drainage, render them less healthful than most other parts of the riding. The very elevated situation of the eastern moorlands renders their climate extremely cold, and presents an insuperable obstacle to their improvement. About the end of August cold and damp vapors begin to descend, and in the form of dense fogs impinge in the morning against the moorland hills, on an elevation of about 700 or 800 feet; and, as they become rarefied by the warmth of the day, either ascend above their summits, or remain upon them at an elevation in proportion to their rarefaction. As the autumn advances, they hang in the morning lower on the hills, and leave their summits sometimes clear, although but for a short time. The country is afterwards, during several months, enveloped in fogs, chilled with rain, or locked up with snow, from an elevation of about 600 feet, with but little interruption. The vale of Cleveland, having these moors on the east and south-east, the sea to the north and north-east, and lying open to the west to the winds from an extensive and mountainous country, has a climate somewhat severe; but the dryness of the soil, and the frequent use of lime, concur to accelerate the harvest, which is nearly as early here as in the warmer parts of this riding: the same remark may be made on the narrow tract which lies along the coast from Whitby to Scarborough. The climate of the western moorlands is colder than that of the eastern moorlands. The western moorlands, being much more elevated than the eastern, and not like them exposed to the sea air, remain longer covered with snow, and are far more subject to rain. In Yorkshire, as well as in all the counties bordering on the German Ocean, the east wind usually predominates in the spring, and during a great part of the summer, as do the west winds in the western parts of the island. The conflict of these two winds generally takes place in the western moorlands, and to this cause must be attributed the almost constant rains that fall in this mountainous district. The clouds from the Atlantic, pushed forward by the westerly winds, are there stopped in their course by the powerful resistance of the easterly winds, as well as by the mountains that arrest their progress and fall upon the moorlands in almost incessant rains. Such is the description of the climate given by Mr. Bigland in the sixteenth volume of *The Beauties of England and Wales*, a volume drawn up with con-



siderable care, and perhaps one of the most pleasingly written of any one of that extensive work. The same authority will be generally resorted to in the further delineations of this county.

The soil is thus described by Mr. Tuke, in his *Agricultural Survey*.—"The level land near the Tees consists, in general, of a rich gravelly loam upon the high ground; and on the west side of the road, leading from Catterick to Piersebridge, the soil is for the most part strong and generally fertile; but in some places cold and spongy: some fine hazel loam is also to be met with. On the east of the road leading from Greta-bridge to Catterick is much fine gravelly soil, with a considerable quantity of clay, and some peat; and on the north of Richmond a mixed loamy soil, in most places upon limestone, but in some upon a freestone most excellent for building. On the east side of the road between Catterick and Piersebridge there is some cold thin clay, upon what is here called a moorland, consisting of a stratum from six inches to a foot thick. It is of a ferruginous, ochreous appearance, and probably contains much iron, as wherever found it is attended with great sterility: there is also some gravelly and some clayey loam. About Barton, Melsonby, and Middleton Tyas, the soil is loamy upon limestone; about Halnaby, and thence in an easterly direction to the edge of Cleveland, and betwixt the Wiske and the eastern moorlands, as far south as Burrowby and Thornton-le-Moor, the soil for the most part is a cold clay; though in some places less tenacious soils, mixed with considerable quantities of large cobble stones, or pebbles, of various kinds, are to be met with. On the west side of the road between Richmond and Leeming a good gravelly soil prevails; towards Hornby a good gravelly clay; at Langthorn a good sand loam and some peat. The land on both sides of the Brook which runs from Constable Burton past Bedale consists for the most part of a rich loam, but in some places intermixed with a large quantity of cobble stones and coarse gravel. The country betwixt the above-mentioned brook and the west riding, and on the west side of the rode from Boroughbridge to Leemin, is generally a turnip soil, though of various qualities, consisting of a loamy soil upon limestone, a gravelly loam, and a rich hazel loam, except that in some parts there are patches of swampy ground and cold clay land. That corner of the vale east of Middleton Tyas, west of the Wiske, and north of a line drawn from Scorton to Danby Wiske, is mostly cold and wet, some of which has a moorland under it; but on the west side of this tract there is some clayey loam, and a little excellent gravelly loam. Along the banks of the Swale, and parts adjacent, the soil is generally very good, consisting of a rich gravelly loam and some fine sandy soil. There are, however, some patches of cold clay soil, and also a little peat here and there. The Howardian Hills form a high and bold range, running from west to east, and separating the vale of York from Rydale. The soil is mostly a good strong loam upon clay mixed with cobble stones; about Gillling and towards Barnsley it is thin and poor, in most places near to a grit, though in some to a limestone rock; but on the northern side of these hills a good clay and sandy loam prevail. Rydale is in general extremely fertile. In the marishes which skirt the north side of the Derwent the soil is chiefly clay with some sandy loam, gravel, and peat. There

is a material difference between the eastern and western moorlands, these latter being generally calcareous; and, although their altitude is considerably greater, they are much more fertile than the former. The dales by which the western moorlands are intersected are very rich and fruitful. Of these Wensleydale may be ranked as the first, both in extent and fertility. The river Ure winds through it; and the soil along its banks is generally a rich loamy gravel. The soil in the lower parts of Swaledale consists chiefly of a rich loam, though clay and peat moss appear in some places in ascending the hills. The smaller dales, which are very numerous, are similar to these, and have the same general appearance of fertility. The rivers have already been mentioned in the general description. The canal from York to Stillington is the only navigable water that penetrates this riding: with this single exception, all the advantages which it derives from navigation are owing to waters that flow on and constitute its boundary. Of the productions of this riding those of a mineral kind are among the chief. These, though very numerous, are not generally of superior quality; except indeed the alum rock on the edge of the Eastern Moorlands, which is perhaps the richest and most extensive in Europe, and the lead in the district of Richmond. A mine of very fine copper near Middleton Tyas was formerly wrought, but is now neglected. Veins of this metal are supposed to be scattered in various parts of the Western Moorlands. Iron-stone is found in great quantities in several parts of the Eastern Moorlands. Free-stone, lime-stone, marble, and coal, are found in various places throughout the riding. This riding is said to produce the largest horned cattle in England; and the breed has within these few years been greatly improved. The horses of this district are also singularly fine. In other respects it does not appear that the north riding has any peculiar character in regard to its productions.

*West Riding.*—This riding, as its name imports lies on the Western borders of the county; and is bounded on the east by the ainsty of York and the river Ouse; on the north by the north riding; and on the west by Lancashire; and on the south by Cheshire, Derbyshire, and Nottinghamshire. It is about ninety-five miles in its greatest length from east to west, and forty-eight miles in its greatest breadth, from north to south, containing about 2500 square miles, or 1,568,000 statute acres.

The climate of this portion of the county is extremely various. In the eastern parts, towards the banks of the Ouse, it resembles that of the east riding on the opposite side of the river; and damps and fogs are somewhat prevalent. In the middle district the air is sharper, clearer, and considered as much more healthful. In the western parts the climate is cold, tempestuous, and rainy. At Sheffield the average gauge of rain is thirty-three inches annually, being about a medium between the quantities that fall in Lancashire and on the eastern coasts of the kingdom. Blackstone Edge, and the Craven Hills, are the most foggy, rainy, and stormy districts in England; although, from the frequent high winds which purify the atmosphere and keep it in a state of agitation, the climate is reckoned salubrious to sound constitutions; and the inhabitants have a robust and healthful appearance. The soil of this district admits of every variety; from the deep strong clay and rich loam, to the worst kind



of peat earth. In the eastern parts clay and loam predominate, but are intermixed with some sandy and moorish tracts. The middle is chiefly a loam upon a limestone bottom; and this kind of soil, with a similar basis, although intermixed in many places with tracts of moor of different qualities, prevails to the western extremities of the riding. Mr. Browne, in his Agricultural Survey, says that the prevailing soil (keeping off the moors) is loam. The face of the country is very irregular; but, in general terms, it may be divided into three large districts gradually varying from a level and marshy to a rocky and mountainous region. The flat and marshy part of the riding lies on the eastern side along the banks of the Ouse, and extends to the westward, in some places to a greater and in others to a less distance; but generally to within three or four miles of an imaginary line drawn from Doncaster to Sherburn. The middle part, as far to the westward as Sheffield, Bradford, and Otley, rises gradually into hills, and is beautifully variegated. Further to the west the surface becomes rugged and mountainous. Beyond Sheffield scarcely any thing is seen but black moors, which running north-west unite with the lofty hills of Blackstone Edge on the borders of Lancashire. The western part of Craven presents a confused heap of rocks and mountains, among which, Pennycant, Whamside, and Ingleborough, are particularly conspicuous; the two last being considered as the highest hills in either England or Wales, not excepting even Skiddaw, Helvellyn, or Snowdon. Amidst the hilly and mountainous tracts of this riding, however, are many romantic valleys, presenting the most beautiful scenery. The most extensive of these are Netherdale, or Niddersdale, watered by the Nid; Wharfedale, and the vale of Aire, which in many places afford views the most delightful that can be imagined. Many valleys of less extent vie with these in picturesque beauty; and the greatest part of them being inclosed, well wooded, and thickly spread with almost continuous villages, present, when viewed from the neighbouring eminences, the resemblance of a terrestrial paradise. From many points are seen the most enchanting prospects, in which beauty and sublimity are pleasingly combined. In travelling from Knaresborough, or Rippon, to Pately bridge, from Tadcaster to Otley and Skipton, from Bradford to Halifax, or by Keighley to Skipton from Halifax, by Dewsbury to Wakefield, and some other roads that might be mentioned, the tourist has an opportunity of contemplating some of the finest scenery in England. Mr. Bigland remarks that in travelling these roads he could not but observe, that, in the whole space between York and London, and between London and Dover, no part of the road, excepting Blackheath and Shooter's Hill, displays such beautiful prospects.

This riding is well provided with the convenience of inland navigation. The Leeds-and-Liverpool Canal issues out of the river Mersey at low water, at the lower extremity of Liverpool, by Bank-Hall, and goes over the river Alt to Mill-house; it then takes a large half-circle about the town of Ormskirk, and crosses Toadbrook near Newborough, whence it proceeds by the Douglas navigation to Wigan, thence, in a circular course, through Red Moss, by Blackrod, north for some way parallel with the Lancaster canal, near Chorley, and by Heapy to Blackburn; thence, with a bend

round Church, it passes Burnley and Coln to Foulbridge, where a basin is cut to supply the canal, of which it is the head. The canal here begins to fall to Leeds, and goes from Foulbridge, by Satterford, East Morton, and crosses the river Aire near Gargrave, by Thorlby, Sturtore, and the town of Skipton, by Bradley, Kildwick, Silsden, near the town of Keighley and by Bingley; a little below which it crosses the river Aire again, passes Shipley, and takes a semi-circular course round the Idle, near Apperton Bridge, Horsforth, Kirkstall Abbey, by Burley and Holbeck, to the town of Leeds, making in the whole a course of 130 miles, with 838 feet fall. Thence to Liverpool, thirty-five miles, fall thirty feet. There is also a collateral cut from near Shipley to Bradford.—The Barnsley Canal joins the river Calder below Wakefield, and passes Crofton, Falkirk, Royston, and arrives at Barnsley, whence it makes a bend to Barnby-Bridge, near Cawthorn; the length about fourteen miles. There are several railways to the canal from Barnsley, and others from Barnby-Bridge. The fall, from the junction with the Deane and Dove Canal, is 120 feet to the river Calder.—The Deane-and-Dove Canal commences from the cut which has been made for the accommodation of the river Dun navigation, between Swinton and Mexbrough, and proceeds by Wath, Wombwell, and Ardsley, to near Barnsley, there to form a junction with the Barnsley Canal, which joins the river Calder. There are two small branches, one parallel with Knolbeck-Brook, to the iron-works at Cob-car-Ing, the other along the head stream of the river Dove to Worsbrough-bridge; with a proposed extension of this branch nearly one mile and a half further. Rockliffe-bridge, adjoining the grounds of earl Strafford, at Wentworth-Castle. The whole length of this canal, from the junction of the river Dun to Barnsley, is nine miles and a quarter, with 125 feet rise from the river Dun to Barnsley. The branch to Cob-car-Ing is one mile and three-quarters, and is level, by means of some deep cutting at the extremity. The branch to Worsbrough is one mile five furlongs in length.—The Stainforth-and-Keadley Canal commences at the river Dun, about a mile to the west of Fish lake, and runs parallel with the river, opposite to Thorn; whence, in a line nearly due east, it passes Crowle and Keadley, where it joins the river Trent. There is a branch, about a mile across Thorn's Common, to a place called Hangman-Hill, which joins the river Dun. The total length of this canal is between fourteen and fifteen miles; and, running through a fenny part of the country, has little elevation, and no lockage, except at the extremities.—The Huddersfield Canal joins Sir John Ramsden's Canal on the south side of Huddersfield, and taking a westerly course runs parallel with the river Colne, which it crosses twice, passing Longwood, Staithewaite, and Marsden: from Marsden, under Pule-moss and Brunn-Top, there is a tunnel of nearly three miles and a half long, which brings the canal to Rasmill, on the Digglewater, and within about two miles from Dubcross; passing which, it takes the route of the river Tame, the windings of which it frequently intersects, and passes within one mile of Lydgate, by Mossley, Steyley-Bridge, and joins the Ashton-and-Oldham Canal on the south side of Ashton, being a course of nineteen miles and five furlongs, with 770 feet lockage.—This riding produces corn and cattle of all sorts; and its mineral productions are



very valuable. Coals are found in great abundance in most parts; and excellent stone for various purposes is every where at hand in the hilly parts, and particularly in the neighbourhood of Bradford, Halifax, Skipton, &c. In the parish of Leeds there is fine pipe-clay, and several quarries of an argillaceous schist, which supply the neighbourhood and the country down the river with slates and flag-stones for paving. On the north-east border of the parish begins a bed of imperfect granite or moorstone, similar to that found on the east moor in Derbyshire, which runs to the Chevin, near Otley, and constitutes the whole ridge of Ronald's Moor as far as Skipton, where limestone commences. On each side towards the level of the rivers Aire and Wharfe the argillaceous schistus occurs, which is evidently a stratum covering the granite. The stone on the south of the Aire is entirely argillaceous schistus, as is generally the case where coal is found. In the neighbourhood of Nidderdale there are considerable lead mines. Mr. Whitaker, in his History of Craven, mentions the following minerals as found in that district:—copper, ores of copper pyrites, copper combined with iron and sulphur, martial pyrites, sulphur combined with iron, with baroselenite foliated and crystallised, found in a mine at Beggarman, to the north-west of Buckden. Lead ores of galena, lead combined with sulphur, the common blue lead ore. Lead mineralised by oxygen and carbonic acid, the white lead ore, crystallised and compact. Green lead ore, phosphorated lead ores, have been discovered in very small quantities on Grassington Moors. Zinc, ores of calamine, lapis calaminaris, zinc mineralised by oxygen with or without carbonic acid. There is found at or near Malham, an oxide of zinc in form of a white powder—some of it is rich: this has not been met with in any other part of England. A thin bed of coal is found on Grassington Moor and the places in that neighbourhood. The above-mentioned ores are accompanied in the vein with baroselenite (cauk of Rome), calcareous spar, or carbonate of lime and quartz, &c. There are several mineral waters in this riding, of which the most famous is the sulphurous water of Harrowgate. There is also a chalybeate spring at the same place, and another at Thorpe-Arch. At Knaresborough is a remarkable petrifying spring, called the Dropping Well; and near Settle is a very curious ebbing and flowing well.

YOU, *pron.* Sax. eop iuh, of ge, ye; Teut. ju. The oblique case of ye; used also in the nominative, when the address is to persons; and, by a corruption, for the second person singular; any one; whosoever.

Ye have heard of the dispensation of the grace of God, which is given me to you ward. *Ephesians.*

I thought to shew you  
How easy 'twas to die, by my example,  
And hansom fate before you. *Dryden.*

We passed by what was one of those rivers of burning matter; this looks, at a distance, like a new-ploughed land; but, as you come near it, you see no thing but a long heap of heavy disjointed clods. *Addison.*

In vain you tell your parting lover,  
You wish fair winds may waft him over. *Prior.*  
Stand forth, ye champions, who the gauntlet wield,  
Or you, the swiftest racers of the field. *Pope.*

YOUGHALL, a considerable sea-port in the county of Cork, Ireland, at the mouth of the river Blackwater, and 115 miles from Dublin. The

harbour is very commodious. The houses are well built, the town has a considerable export trade, and good market. A league south-east of the haven's mouth lies the little island of Chapple.

|                                |  |
|--------------------------------|--|
| YOUNG, <i>adj. &amp; n. s.</i> | } Sax. iong, yeong; Goth. Swed., and Dan. <i>ung</i> ; Belg. <i>jung</i> ; Teut. <i>jung</i> . Youthful; being in the first part of life; not old; tender; inexperienced; weak: the offspring of |
| YOUNG'ISH, <i>adj.</i>         |  |
| YOUNG'LING, <i>n. s.</i>       |  |
| YOUNG'LY, <i>adv.</i>          |  |
| YOUNG'STEER, <i>n. s.</i>      |  |
| YOUN'KEE,                      |  |
| YOUNG'TH.                      |  |

animals collectively: youngish is somewhat young: a youngling is a creature in the early part of life: youngly, early in life; weakly: youngster, or younker, a young person; in contempt: youth, used by Spenser for youth.

More dear unto their God than *younglings* to their dam. *Fairie Queene.*

The mournful muse in mirth now list ne mask,  
As she was wont in *youth* and summer days. *Spenser.*

Come, elder brother, thou art too *young* in this. *Sh. Aspeare.*

I firmly am resolved  
Not to bestow my *youngest* daughter,  
Before I have a husband for the elder. *Id.*

Thou old and true Menenius,  
Thy tears are saller than a *younger* man's,  
And venomous to thine eyes. *Id.*

The hedge-sparrow fed the cuckoo so long,  
That it had its head bit off by its *young*. *Id.*

*Youngling*, thou can'st not love so dear as I.  
—Grey-beard, thy love doth freeze. *Id.*

Say we read lectures to you,  
How *youngly* he began to serve his country,  
How long continued, and what stock he springs of. *Id.*

See how the morning opes her golden gates,  
And takes her farewell of the glorious sun:  
How well resembles it the prime of youth,  
Trim'd like a *younker* prancing to his love. *Id.*

There be trees that bear best when they begin to be old, as almonds; the cause is, for that all trees that bear must have an oily fruit; and *young* trees have a more watery juice, and less concocted. *Bacon.*

While Ulysses slept there, and close by  
The other *yonkers*, he abroad would ly. *Chapman.*

In timorous deer he hansom his *young* paws,  
And leaves the rugged bear for firmer claws. *Cowley.*  
Guests should be interlarded, after the Persian custom, by ages *young* and old. *Carew.*

Fame tells, by age fame reverend grown,  
That Phœbus gave his chariot to his son;  
And whilst the *youngster* from the path declines,  
Admiring the strange beauty of the signs,  
Proud of his charge, he drove the fiery horse,  
And would outdo his father in his course. *Creech.*

The eggs disclosed their callow *young*. *Milton.*

When we perceive that bats have teats, it is not unreasonable to infer, they suckle their *younglings* with milk. *Broune.*

The reason why birds are oviparous, and lay eggs, but do not bring forth their *young* alive, is because there might be more plenty. *More.*

Nor need'st thou by thy daughter to be told,  
Though now thy spry blood with age be cold,  
Thou hast been *young*. *Dryden.*

Not so her *young*; for their unequal line  
Was heroes make, half human, half divine;  
Their earthly mold obnoxious was to fate,  
The' immortal part assumed immortal state. *Id.*  
Encouraged thus, she brought her *younglings* nigh. *Id.*

When we say a man is *young*, we mean that his age is yet but a small part of that which usually men attain



to: and, when we denominate him old, we mean that his duration is run out almost to the end of that which men do not usually exceed.

*Locke.  
Tatler.*

She let her second room to a very genteel youngish man.

YOUNG (Dr. Edward) was the son of a clergyman of the same name, and was born about the year 1679. When sufficiently qualified he was matriculated into All Souls' College, Oxford; and, designing to follow the civil law, he took a degree in that profession. In this situation he wrote his poem called the *Last Day*, published in 1704, which, coming from a layman, gave universal satisfaction; this was soon after followed by another, entitled *The Force of Religion, or Vanquished Love*. These productions gained him a respectable acquaintance; he was intimate with Addison, and thus became one of the writers of the *Spectator*; but, the turn of his mind leading him to the church, he took orders, was made one of the king's chaplains, and obtained the living of Welwyn in Hertfordshire, worth about £500 per annum, but he never rose to higher preferment. For some years before the death of the late prince of Wales, Dr. Young attended his court pretty constantly; but upon his decease all his hopes of church preferment vanished; however, upon the death of Dr. Hales, he was taken into the service of the princess dowager of Wales, and succeeded him as her privy chaplain. When pretty far advanced in life, he married the lady Elizabeth Lee, daughter of the late earl of Lichfield. This lady was a widow, and had an amiable son and daughter, who both died young. What he felt for their loss, as well as for that of his wife, is finely expressed in his *Night Thoughts*, in which the young lady is characterised under the name of Narcissa; her brother by that of Philander; and his wife, though nameless, is frequently mentioned; and he thus, in an apostrophe to death, deploras the loss of all the three:—

Insatiate archer, could not one suffice!

Thy shaft flew thrice, and thrice my peace was slain,

And thrice are thrice yon moon renewed her horn.

He wrote three tragedies, *The Revenge*, *Busiris*, and *The Brothers*. His satires, called *Love of Fame* the universal Passion, are by many esteemed his principal performance, though Swift said the poet should have been either more angry or more merry; they have been characterised as a string of epigrams written on one subject, that tire the reader before he gets through them. His *Complaint*, or *Night Thoughts*, exhibits him as a moral and melancholy poet, and are esteemed his master piece. They form a species of poetry peculiarly his own, and in which he has been unrivalled by all those who have attempted to write in this manner. They were written under the recent pressure of his sorrow for the loss of his wife, daughter, and son-in-law; they are addressed to Lorenzo, a man of pleasure and the world, and who, as it is insinuated by some, is his own son, but then laboring under his father's displeasure. As a prose writer, he arraigned the prevailing manners of his time, in a work called *The Centaur not Fabulous*; and, when he was above eighty years of age, published *Conjectures on Original Composition*. He published some other pieces; and the whole of his works are collected in four or five volumes, 12mo. Dr. Young's turn of mind was naturally solemn;

and he usually, when at home in the country, spent many hours of the day walking in his own churchyard among the tombs. His conversation, his writings, had all a reference to the life after this; and this turn of disposition mixed itself even with his improvements in gardening. He had, for instance, an alcove with a bench so painted, near his house, that at a distance it looked as a real one which the spectator was then approaching. Upon coming up near it, however, the deception was perceived, and this motto appeared, *Invisibilia non decipiunt*, 'The things unseen do not deceive us.' Yet, notwithstanding this gloominess of temper, he was fond of innocent sports and amusements; he instituted an assembly and a bowling green in the parish of which he was rector, and often promoted the gaiety of the company in person. His wit was generally poignant, and ever levelled at those who testified any contempt for decency and religion. His epigram spoken extempore on Voltaire is well known; who happening in his company to ridicule Milton, and the allegorical personages of *Death* and *Sin*, Young thus addressed him:—

Thou art so witty, profligate, and thin,

You seem a Milton with his *Death* and *Sin*.

One Sunday, preaching in office at St. James's, he found that, though he strove to make his audience attentive, he could not prevail. Upon which his pity for their folly got the better of all decorum, and he sat back in the pulpit and burst into a flood of tears. Towards the latter part of life he knew his own infirmities, and suffered himself to be in pupilage to his house keeper; for he considered that, at a certain time of life, the second childhood of age demanded its wonted protection. His son, whose boyish follies were long obnoxious to paternal severity, was at last forgiven in his will; and our poet died extremely regretted in 1765.

YOUNG (Patrick), M. A., a learned Scottish writer, educated at St. Andrew's, and graduated at Oxford, in 1605. He became keeper of the king's library at St. James's, and published *St. Clement's Epistle to the Romans*, Greek and Latin, in 1637. From his deep skill in the Greek language, he was employed to print the *Septuagint* from the Alexandrian MS. presented to king Charles I. by bishop Cyril Lucar; but did not live to execute it. He died in 1652.

YOUR pron. } Sax. eoþen. The possessive  
YOURSELF, n.s. } of you; belonging to you.  
Used properly when we speak to more than one, and ceremoniously and customarily when to only one: when placed after the substantive it becomes yours: yourself (of your and self) means your, emphatically; and has a reciprocal sense in oblique, and sometimes in nominative, cases.

Either your unparagoned mistress is dead, or she's outprized by a trifle. *Shakespeare.*

He is forsworn, if e'er those eyes of yours  
Behold another day break in the east. *Id.*

If it stand, as you yourself still do,  
Within the eye of honour, be assured

My purse, my person, my extremest means,  
Lie all unlocked to your occasions. *Id.*

Impute your danger to our ignorance;

The bravest men are subject most to chance. *Dryden.*

My wealth, my city, and myself are yours. *Id.*

There is a great affinity between coins and poetry, and your medallist and critic are much nearer related than the world imagine. *Addison.*

A disagreement between these seldom happens, but among your antiquaries and schoolmen. *Fenton.*



It is my employment to revive the old of past ages to the present, as it is *yours* to transmit the young of the present to the future. *Pope.*

Ye dauntless Dardans hear,  
Think on the strength which once *your* fathers bore.

*Id.**Id.*

Be but *yourselves*.

Whenever you are more intent upon adorning *your* persons than upon perfecting of *your* souls, you are much more beside *yourselves* than he that had rather a laced coat than a healthful body. *Law.*

YOUTH, *n. s.*

YOUTH'FUL, *adj.*

YOUTH'FULLY, *adv.*

YOUTH'LY, *adj.*

YOUTH'Y.

Sax. *yeoƷuð*. The part of life succeeding to childhood and adolescence; a young man; young men collectively: youthful is

young; vigorous; suitable to the early part of life: the adverb corresponding: youthly and youthy (obsolete) synonyms of youthful.

True be thy words, and worthy of thy praise,  
That warlike feats dost highest glorify,  
Therein have I spent all my *youthly* days,  
And many battles fought, and many frays. *Spenser.*

Siward's son,

And many unrough *youths* even now,  
Protest their first of manhood. *Shakespeare.*

Our army is dispersed already:

Like *youthful* steers unyoked they took their course,  
East, west, north, south. *Id.*

But could *youth* last, and love still breed,  
Had joys no date, and age no need;  
Then these delights my mind might move,  
To live with thee, and be thy love. *Raleigh.*

As it is fit to read the best authors to *youth* first, so let them be of the openest and clearest; as *Livy* before *Sallust*, *Sidney* before *Donne*. *Ben Jonson.*

Here be all the pleasures

That fancy can beget on *youthful* thoughts,  
When the fresh blood grows lively, and returns  
Brisk as the April buds in primrose season. *Milton.*

His starry helm unbuckled showed him prime  
In manhood, where *youth* ended. *Id.*

The graces put not more exactly on  
The' attire of *Venus*, when the ball she won,  
Than that young beauty by thy care is drest,  
When all your *youth* prefers her to the rest. *Waller.*

In his years were seen

A *youthful* vigour and autumnal green. *Dryden.*

The pious chief

A hundred *youths* from all his train elects,  
And to the *Latian* court their course directs. *Id.*

The scribbler had not genius to turn my age, as indeed I am an old maid, into railery, for affecting a *youthier* turn than is consistent with my time of day. *Spectator.*

The solidity, quantity, and strength of the aliment, is to be proportioned to the labour or quantity of muscular motion, which in *youth* is greater than any other age. *Arbuthnot.*

How is a good Christian animated by a stedfast belief of an everlasting enjoyment of perfect felicity, such as, after millions of millions of ages, is still *youthful* and flourishing, and inviting as at the first! no wrinkles in the face, no grey hairs on the head of eternity. *Bentley.*

The nymph surveys him, and beholds the grace  
Of charming features, and a *youthful* face. *Pope.*

YPIGHT, *part.* Y and pight, from pitch.  
Fixed. Obsolete.

That same wicked wight

His dwelling has low in an hollow cave,  
Far underneath a craggy cliff *ypight*,  
Dark, doleful, dreary, like a greedy grave. *Spenser.*

YPRES, a considerable town of West Flanders, situated on the small river Yperle. It has the ad-

vantage of water communication, by a canal with Bruges, Ostend, and Nieuport; it is fortified, and, on the whole, well built. Its chief structures are the town hall, built in the Gothic style, an elegant cathedral, and other churches, which contain, as usual in Belgium, good paintings. The other buildings are the exchange, the chamber of commerce, and the college or public school. Ypres has a population of 15,500.

YRIARTE (Don John De), a learned Spaniard, born in the Isle of Teneriffe, and educated at Rouen and Paris. After his return to Madrid, he became librarian to the king; member of the academy, and interpreter to the secretary of state. He wrote, 1. *Paleographia Græca*; 2. A Catalogue of Greek MSS. in the Royal Library; 3. A Catalogue of Arabic MSS. in the Escorial; 2 vols. folio; 4. Various Tracts in Spanish; 2 vols. 4to. He died in 1771.

YSARD, a name of the chamois goat. See CAPRA.

YSNI. See ISNY.

YUCATAN, the most easterly province of New Spain, is in the form of a peninsula, jutting out into the gulf of Mexico from the mainland of the isthmus. It is surrounded on the north-west by the waters of the Mexican Gulf, by the bay or gulf of Honduras on the south-east, the province of Vera Cruz bounds it on the south-west, and Vera Paz in Guatemala on the south. Here it is connected with the continent of North America, by an isthmus of about 120 miles in breadth. The English have settlements extending a short distance along the east coast of Yucatan, opposite Ambergris Key. See AMERICA, BRITISH.

YUCCA, Adams's needle, in botany, a genus of plants of the class hexandria, and order monogynia. The corolla is campanulate and patent, there is no style, the capsule is trilocular. There are four species, none of which are natives of Britain. All of them are exceedingly curious in their growth, and are therefore much cultivated in gardens. The Indians make a kind of bread from the roots of this plant.

YVICA, or IYIÇA, or IBIÇA, an island of the Mediterranean, belonging to Spain, the principal of the group called the Pithyusæ. Its extent is 190 square miles; its population 15,200. It is divided into five parts, which are called respectively, the Plain of the Town, St. Eulalia, Balanzar, Pormany, and Las Salinas. Iviça is of considerable elevation, and full of mountains covered with verdure, which presents at sea a grand and agreeable picture. The figs of Iviça were celebrated even in the time of Pliny. It is about sixty-one miles east from Cabozdi St. Anton, a cape near Denia, on the coast of Valencia, in Spain, fifty-two miles from Majorca, and 147 from Cape Tenez, on the coast of Africa.

Yviça, the capital of the island, is situated on a hill on the coast. It is a bishop's see, is well fortified, and has a good harbour, which, though somewhat encumbered by mud, is still capable of containing a considerable squadron. It lies under the cannon of a fort erected by the emperor Charles V. The public buildings are the cathedral, six churches, an hospital, several chapels, monasteries, and barracks. Population 2700.

YUCK. See ITCH, INSECT, and MEDICINE.

YULE, Yool, or IUL. See IUL.

YURE, a river in Yorkshire, rising at the north-

western extremity of the county, Cotter Mountain, and passing Middleham, Ripon, and Borough-bridge, where it is joined by the Swale, and then constitutes the river Ouse; on this river is the magnificent cataract called Aysgarth-Force, rec-

koned by some to exceed most of the cataracts abroad.

YUX. See HICCOUGH.

YZQUACHTLI. See FALCO.

YZQUIEPATL. See VIVEREA.

## Z.

Z is found in the Saxon alphabet, but is read in no word originally Teutonic: its sound is uniformly that of a hard s. No word of English origin begins with it.

Z is used, 1, as a letter; 2, as an abbreviation; and, 3, anciently as a numeral. I. As a letter: Z is the twenty-fourth and last, and the nineteenth consonant of our alphabet, though it is only the sixth in the Greek. The sound is formed by a motion of the tongue from the palate downwards and upwards to it again, with a shutting and opening of the teeth at the same time. This letter has been reputed by Roman and Grecian grammarians a double consonant, having the sound *ds*; but some think with very little reason; and, as if we thought otherwise, we often double it, as in puzzle, muzzle, &c. II. In abbreviations, Z formerly stood as a mark for several sorts of weights; sometimes it signified an ounce and a half; and very frequently it stood for half an ounce; sometimes for the eighth part of an ounce, or a drachm Troy weight; and it has in earlier times been used to express the third part of an ounce or eight scruples. ZZ were used by some of the ancient physicians to express myrrh, and at present are often used to signify zinziber or ginger. III. Among the ancients, Z was a numeral letter, signifying 2000; and, with a dash added a top, Z signified 2000 times 2000, or 4,000,000.

ZAAB, a district of Algiers, in Africa, south of the province of Constantia, and consisting of a narrow track of land, under the Atlas. It formed anciently part of the Mauritania Sitifensis, and the Roman masonry may often be traced.

ZAANDAM, or SAARDAM, a town of the Netherlands, in North Holland, on the Zaan, near its junction with the Y. It consists properly of two great villages, called East and West Zaandam, containing together 10,700 inhabitants. The houses are for the most part of wood. Its manufactures of ropes, tobacco, and paper are extensive; but the most important branch of its industry is, and has long been, ship-building. Here the czar Peter the Great, under the name of Peter Michailov, studied that art. The house which he occupied, is still pointed out. Five miles north by west of Amsterdam.

ZABARELLA (Francis), a learned cardinal, born at Padua, in 1339. He became professor of canon law in different universities, and was made a cardinal by pope John XXI., who sent him ambassador to the emperor Sigismund. He assisted at the council of Constance, where he advised to depose the pope, whom he accused of forty notorious crimes. He died there in 1417. He wrote A Treatise on Schism, and other tracts.

ZABARELLA (James), a relation of Francis, born

at Padua in 1533, was well versed in Aristotle's philosophy, and became professor of it at Padua. He wrote Commentaries on Aristotle, and a treatise on the Perpetuum Mobile, De inventione aeterni motoris, &c. He died in 1589.

ZABIANS. See SABIANS.

ZABIISM, or SABIISM, the doctrine of the Sabians. See MYTHOLOGY, POLYTHEISM, and SABIANS.

ZABULON, Heb. זבולון, i. e. a dwelling place, or ZEBULON, one of the twelve patriarchs of Israel; the tenth son of Jacob, and the sixth by Leah.

ZABULON, in ancient geography, the territory of one of the twelve tribes; bounded on the north by that of Ashur and Naphthali; on the east by the sea of Galilee; on the south by the territory of Issachar, or the brook Kison, which ran between both; on the west by the Mediterranean; so that it touched two seas.

ZABULON, a very strong town in the above territory, on the Mediterranean, surnamed of men, near Ptolemais, its vicinity to which makes it probable that it was also Chabulon, unless either name is a faulty reading in Josephus; about sixty stadia from Ptolemais.

ZACCHEUS, a publican or Roman tax-gatherer, at Jerusalem, who, indulging in a natural curiosity to see our Saviour, was happily called and converted by him, of which he gave immediate proof by offering to restore all his fraudulent extortions four fold. Luke xix. 1—10.

ZACCHO, in architecture, the lowest part of the pedestal of a column.

ZACHARIAH, the son of Jeroboam II., a short-lived king of Israel. See ISRAEL.

ZACHARIAH. See ZECHARIAH.

ZACUTUS, or Lusitanus, a Jewish physician of Portugal, who retired to Amsterdam when Philip IV. issued his edict against the Jews. His *In-troitus ad Praxam*, and other medical works, have been collected and published in 2 vols. folio. He died in 1641.

ZACUTUS (N.), a grandson of the above, became eminent in mathematics, and published a book entitled *Juchasin*, a Jewish Chronology from the creation to the year 1500.

ZACYNTHUS, an ancient island, south of Cephalonia, sixty stadia, but nearer to Peloponnesus, in the Ionian Sea, formerly subject to Ulysses, in compass above 160 stadia; woody and fruitful. It lies over against Elis, and had a colony of Achaeans from Peloponnesus, over against the Corinthian Gulf. It is now called Zante.

ZACYNTHUS, in fabulous history, a native of Boeotia, who accompanied Hercules when he went to Spain to destroy Geryon. After the victory, the hero entrusted him with the care of Geryon's flocks,



to lead them to Thebes. On the road he was bitten by a serpent, and died. His companions buried him in the above island, and gave it his name.

**ZADOK**, the son of Ahitub, high priest of Israel, appointed by Saul, and continued conjunctly with Abiathar during all the reign of David, to whom he was a steady friend, in all his distresses. His colleague, Abiathar, having forfeited Solomon's favor, by joining in the conspiracy of Adonijah, Zadok was appointed sole high priest. He was succeeded by his son Ahimaaz.

**ZADOK**, another Jewish high priest, whose daughter Jerusha was married to king Uziah.

**ZADOK**, or **SADOC**, a Jewish sceptical philosopher, who flourished about A. A. C. 260., and founded the sect of the Sadducees.

**ZAFFAR**, *n. s.* } Germ. *zaffir*.  
**ZAFFIR**. }

Cobalt being sublimed, the flowers are of a blue colour; these German mineralists called *zaffir*. Woodward.

The artificers in glass tinge their glass blue with that dark mineral *zaphra*. Boyle.

**ZAFFIR**, **ZAFFRE**, in metallurgy, is the oxyd of cobalt employed for painting pottery ware and porcelain of a blue color. See **CHEMISTRY**, **COBALT**, **METALLURGY**, and **MINERALOGY**. The method of preparing it is as follows:—The cobalt taken out of the mine is broken with hammers into pieces about the size of a hen's egg; and the stony involucre, with such other heterogeneous matters as are distinguishable by the eye, are separated as much as possible. The mineral is then pounded in stamping mills, and sifted through brass wire sieves. The lighter parts are washed off by water, and it is afterwards put into a large flat-bottomed arched furnace, resembling a baking oven, where the flame of the wood reverberates upon the ore; which is occasionally stirred and turned with long handled iron hooks or rakes; and the process is continued till it ceases to emit any fumes. The oven or furnace is terminated by a long horizontal gallery, which serves for a chimney, in which the arsenic, naturally mixed with the ore, sublimes. If the ore contains a little bismuth, as this last metal is very fusible, it is collected at the bottom of the furnace. The cobalt remains in the state of a dark gray oxyd, called *zaffre*: 100lbs. of the cobalt ore lose twenty or thirty per cent. during this operation, which is continued four or nine hours, according to the quality of the ore. The roasted ore being taken out from the furnace, such parts as are concreted into lumps are pounded and sifted afresh. *Zaffre*, in commerce, is never pure, being mixed with two or three parts of powdered flints. A proper quantity of the best sort of these, after being ignited in a furnace, are thrown into water to render them friable, and more easily reduced to powder; which, being sifted, is mixed with the *zaffre*, according to the before-mentioned dose; and the mixture is put into casks, after being moistened with water. This oxyd, fused with three parts of sand and one of pot-ash, forms a blue glass; which, when pounded, sifted, and afterwards ground in mills, included in large casks, forms smalt. The blue of *zaffre* is the most solid and fixed of all the colors that can be employed in vitrification. It suffers no change from the most violent fire. It is successfully employed to give shades of blue to enamels, and to the crystal glasses made in imitation of some opaque and transparent precious stones, as the lapis lazuli, turquois, &c.

**ZAKKOUN**, a plant that grows at Raha, the ancient Jericho, and affords a sweet oil famous for healing wounds. The *zakkoun* resembles a plum-tree; it has thorns four inches long, with leaves like those of the olive-tree, but narrower, and greener, and prickly at the end; its fruit is a kind of acorn, without a calyx, under the bark of which is a pulp, and then a nut, the kernel of which gives an oil that the Arabs sell at a very high price. See **JERICHO**.

**ZALEUCUS**, a famous legislator of the Locrians, and the disciple of Pythagoras, flourished 500 years B. C. He made a law, by which he punished adulterers with the loss of both their eyes; and his son, offending, was not absolved from this punishment; yet, to show the father as well as the just lawgiver, he put out his own right, and his son's left eye. This example of justice and severity made so strong an impression on the minds of his subjects, that no instance was found of the commission of that vice during the reign of that legislator. It is added that Zaleucus forbade any wine being given to the sick on pain of death, unless it was prescribed by the physicians; and that he was so jealous of his laws, that he ordered, that whoever was desirous of changing them, should be obliged, when he made the proposal, to have a cord about his neck, that he might be immediately strangled, if those alterations were esteemed no better than the laws already established. Diodorus Siculus attributes the same thing to Charondas, legislator of the Sybarites. Zaleucus also enacted some humorous sumptuary laws. See **SUMPTUARY**.

**ZAMA**, in ancient geography, a town of Numidia, it was one of the royal residences of the kings of Numidia, hence called *Zama Regia*. It stood in a plain; was stronger by art than nature; richly supplied with every necessary; and abounding in men, and every weapon of war. This is the famous Zama, remarkable for the decisive battle fought between the two greatest commanders in the world, Hannibal the Carthaginian and Scipio Africanus. Of this engagement, the most important perhaps that ever was fought, Mr. Hooke gives us the following account:—“Scipio drew up his army after the Roman manner, except that he placed the cohorts of the Principes directly behind those of the Hastati, so as to leave sufficient space for the enemy's elephants to pass through from front to rear. C. Lælius was posted on the left wing with the Italian horse, and Masinissa with his Numidians on the right. The intervals of the first line Scipio filled up with his Velites, or light-armed troops, ordering them, upon a signal given, to begin the battle; and in case they were repulsed, or broke by the elephants, to run back through the lanes before mentioned, and continue on their flight till they were got behind the Triarii. Those that were wounded, or in danger of being overtaken, were to turn off to the right and left through the spaces between the lines, and escape to the rear. The army thus drawn up, Scipio went from rank to rank, urging his soldiers to consider the consequences of a defeat, and the rewards of victory; on the one hand, certain death or slavery (for they had no town in Africa strong enough to protect them); on the other, not only a lasting superiority over Carthage, but the empire of the rest of the world. Hannibal ranged all his elephants, to the number of above eighty, in one front. Behind these he placed his mercenaries, consisting of 12,000 men, Ligurians



Gauls, Baleares, and Mauritanians. The new levies of Carthaginians and other Africans, together with 4000 Macedonians, under a general named Sopater, composed the second line. And in the rear of all, at the distance of about a furlong, he posted his Italian troops, in whom he chiefly confided. The Carthaginian horse formed his right wing, the Numidians his left. He ordered their several leaders to exhort their troops not to be discouraged by their own weakness, but to place the hope of victory in him and his Italian army; and particularly directed the captains of the Carthaginians to represent to them what would be the fate of their wives and children if the event of this battle should not prove successful. The general himself, walking through the ranks of his Italian troops, called upon them to be mindful of the seventeen campaigns in which they had been fellow-soldiers with him; and of that constant series of victories by which they had extinguished in the Romans all hope of ever being conquerors. He urged them to remember, above all, the battles of Trebia, Thrasymenus, and Cannæ; with any of which the approaching battle was in no wise to be compared, either with respect to the bravery or the number of the enemy. The Romans were yet unfoiled, and in the height of their strength, when you first met them in the field: nevertheless you vanquished them. The soldiers now before us are either the children of the vanquished, or the remains of those whom you have often put to flight in Italy. Maintain therefore your general's glory and your own, and establish to yourselves the name of invincible, by which you are become famous throughout the world. When the Numidians of the two armies had skirmished a while, Hannibal ordered the managers of the elephants to drive them upon the enemy. Some of the beasts, frightened at the noise of the trumpets, immediately ran back amongst the Numidians of the Carthaginian left wing, and put them into confusion; which Masinissa taking advantage of, entirely routed them. Great destruction was made of the Velites by the rest of the elephants, till these also being terrified, some of them ran through the void spaces of the Roman army which Scipio had left, others, falling in among the cavalry of the enemy's right wing, gave Lælius the same opportunity against the Carthaginian horse. After this, the infantry of the foremost lines joined battle. Hannibal's mercenaries had the advantage at first; but the Roman Hastati sustained the attack, and at length gained ground. The mercenaries, thinking themselves betrayed, fell furiously upon the Africans; so that these were obliged to fight for some time both against their own mercenaries and the enemy. When the two Carthaginian lines had ceased their mutual rage, they joined their strength; and, though now but a mere throng of men, broke the Hastati; but the Principes advancing restored the battle; and most of the Africans and mercenaries were cut off. Then followed a sharp engagement, in which victory was long and eagerly disputed. The Romans, though superior in number, were once upon the point of losing the day; but Masinissa and Lælius came very seasonably to their assistance. These generals, being returned from the pursuit of the cavalry, fell suddenly upon the rear of Hannibal's men, most of whom were cut off in their ranks; and, of those that fled, very few escaped the horse, the country all round being a plain. There

fell of the Carthaginians above 20,000, and as many were taken prisoners. The loss on the side of the Romans amounted to about 2000 men. Hannibal escaped with a few horse to Adrumetum, having performed every thing in the engagement which could be expected from a great general. His army (says Polybius) could not have been more skillfully drawn up. For, as the order of the Roman battalions makes it extremely difficult to break them, the Carthaginian wisely placed his elephants in the front, that they might put the enemy in confusion before the armies should engage. In his first line he placed the mercenaries; men bold and active, but not well disciplined, that by their impetuosity he might give a check to the ardor of the Romans. The Africans and Carthaginians, whose courage he doubted, he posted in the middle between the mercenaries and his Italian soldiers, that they might be forced to fight, or at least the Romans, by slaughtering them, might fatigue themselves, and blunt their weapons. Last of all he drew up the troops he had disciplined himself, and in whom he chiefly confided, at a good distance from the second line, that they might not be broken by the route of the Africans and mercenaries, and kept them in reserve for a vigorous attack upon a tired and weakened enemy.

**ZAMIA**, in botany, a genus of plants in the class of cryptogamia, and order of filices; ranking according to the natural method in the first order, palmæ.

**ZAMINY**, in the language of Bengal, security.

**ZAMORA**, a province in the north-west of Spain, formed of a part of the great province of Leon, and lying to the south and north of the Douro, on the frontiers of Portugal. Its area is 1650 square miles; its population, far more thinly scattered, is only between 70,000 and 80,000. Its surface is in general hilly, and ill adapted to tillage. It is built near the north bank of the Douro, and to the east of an angular district, formed by a projection of the Portuguese territory. The height it stands on commands the river, and gives it, from a distance, a good appearance; but the houses are old fashioned, the streets narrow, and the appearance of the interior in general gloomy. It is the residence of a bishop, contains a number of churches and chapels, and has about 9000 inhabitants. In the eleventh century it was demolished by a Moorish force, but rebuilt by the Spanish government and fortified. The walls are still kept up. The environs are adapted to pasturage. Thirty-three miles north of Salamanca.

**ZAMORANO** (Roderick), a Spanish navigator, who published *A Compendium of Navigation*, in 1585, which contributed much to the improvement of the art. He was the first who published sea charts. See **NAVIGATION**.

**ZAMOSKI** (John), the son of Stanislaus Zamoski, castellan of Chelm in Red Russia, was a man of great talents and virtue. He studied at Paris, and afterwards at Padua, of which last university he was chosen rector. At Padua he published two tracts *De Senatu Romano*, and *De Senatore*. On his return to Poland, king Stephen Battori gave him his niece in marriage, made him grand chancellor, and general of the army. He delivered Poland from the Russian yoke. On the death of Stephen, the nobles offered him the crown; but he refused, and advised them to elect Sigismund prince of Sweden. He died in 1605.



**ZANCHIUS**, or **ZANCHY** (Jerome), a learned reformer, was born at Alzano, in Italy, in 1516, and entered among the canons regular of Lateran; but, becoming intimate with Peter Martyr, he turned Lutheran, and left Italy. He went to Strasburg in 1553; and then became professor of divinity at Heidelberg, where he died in 1590. He was a man of great piety and moderation. His works were published in 8 vols. folio, 1613.

**ZANCLE**, an ancient town of Sicily, on the strait between that island and the continent of Italy. It was so named from its resembling *ζαγκλον*, a scythe. It was founded about A. A. C. 1058, by the pirates of Cumæ in Italy, and peopled by Samians, Ionians, and Chalcidians.—Strabo 6. Diod. 4. Ital. 1. About 497 B. C. it was taken by the Samians, but in three years was recovered by Anaxilaus, the Messenian tyrant of Rhegium, who named it Messana from his native country. See **MESSANA**. It is now called Messina.

**ZANICHELLI** (John Jerome), a learned Italian physician and botanist, born at Modena in 1662. He settled at Venice with great reputation. He wrote, 1. *Catalogus Plantarum terrestrium marinarum*, &c. 8vo. 2. *Promptuarium remediumum Chymicorum*, 8vo. 3. *De Myriophyllo Pelagico*. 4. *Lithographia 2m. montium Veronensium*, &c. 5. *De Rusco ejusq. præparatione*, 8vo. 6. *Opuscula Botanica*, 4to. 7. *History of Plants growing round Venice*, folio. He died in 1729.

**ZANICHELLIA**, in botany, triple-headed pondweed, a genus of plants, in the class of monocæia, and order of monandria; and by the natural method ranking in the fifteenth order, inundatae. These plants have no hermaphrodite flowers, but bear both male and female flowers distinct on the same plant; whence they are styled androgynous plants. Their male flowers are furnished with only one stamen.

**ZANNONI** (James), M. D. and botanist of Bologna. He discovered many plants, and wrote, 1. *Historia Botanica*, folio, 1675. 2. *Rariorum Stirpium Historia*, folio. He died in 1682.

**ZANNONIA**, in botany, a genus of plants of the class diœcia, and order of pentandria. The characters are these:—They produce separate male and female flowers; in the male flower the cup is a perianthium, composed of three leaves of an oval figure, expanding every way, and shorter than the flower; the flower is monopetalous, but divided into five segments, and has an open mouth; the segments are jagged, and are equal in size, and bend backwards; the stamina are five filaments of the length of the cup, standing open at their ends, and terminated by simple apices; the female flowers grow in separate plants, and have the cup and flower the same as in the male, only that the cup stands upon the germ of the pistil; this germ is oblong, and from it are propagated three reflex conic styles; the stigmata are bifid and curled; the fruit is a long and very large berry, truncated at the end, and very small at the base; it contains three cells, and has a curled suture near the apex; the seeds are two; they are of an oblong figure, and flat. There is only one species, viz. *Z. Indica*, the Indian zannonia, a native of India.

**ZANOTTI** (Francis Maria Gazazzoni), an eminent philosopher, born at Bologna in 1692. He was educated among the Jesuits, studied the law, and at last mathematics under Beccari. In 1716 he became secretary to the senate of Bologna, and, in 1718, professor of mathematics. He introduced the Newtonian system instead of the Cartesian.

He was made librarian to the Institute, and compiled two catalogues of its books. In 1766 he was president. He wrote various philosophical works; and died in 1777.

**ZANTE**, the ancient Zacynthus, an island of the Mediterranean, forming a part of the Ionian republic, and situated at a short distance to the south of Cephalaria, and to the west of the ancient Elis, in the Morea or Peloponnesus. Its form is irregular; its length fifteen miles; its breadth above eight; its circumference more than thirty; its area about 160. In its aspect it is the finest of the Ionian islands; has no large rivulets; but in summer, considerable inconvenience is experienced, from the drying up of the springs and wells. Springs of petroleum and mineral tar are worked here to advantage. Like the neighbouring islands, Zante is subject to frequent shocks of earthquakes. The chief products of Zante are currants, olives, and other fruits of a warm latitude (38° N.). Cotton and silk are also cultivated.

**ZANTE**, the Zacynthus of the ancients, the capital of the foregoing island, is situated on the eastern coast, about twelve miles nearly west of Cape Tornese, in Morea. It is the largest town of the republic, containing between 16,000 and 18,000 inhabitants.

**ZANTHOXYLUM**, the tooth-ache tree, in botany, a genus of plants of the class diœcia, and order of pentandria; natural order forty-sixth, hederaceæ: *CAL.* quinquepartite: *COR.* none: the female flower has five pistils and as many monospermous capsules. They bear male and female flowers on distinct plants. The male flowers have five stamina. There are two species viz. 1. *Z. clava Herculis*, the Hercules's club toothache tree; and, 2. *Z. trifoliatum*, the three-leaved toothache tree. They are both foreign plants.

**ZANY**, *n. s.* From zanei, the contraction of Giovanni: or, according to Skinner, from sanna, a scoff. One employed to raise laughter by gestures, actions, or speeches; a merry andrew; a buffoon.

Some carrytale, some pleaseman, some slight zany,  
Some mumblenews, some trencher knight, some Dick,  
Told our intents before. *Shakspeare.*

Then write that I may follow, and so be  
Thy echo, thy debtor, thy foil, thy zany,  
I shall be thought, if mine like thine I shape,  
All the world's lion, though I be thy ape. *Donne.*

Oh, great restorer of the good old stage,  
Preacher at once, and zany of thy age. *Pope.*

**ZAPATA**, a feast or ceremony held in Italy, in the courts of certain princes, on St. Nicholas's day; wherein people hide presents in the shoes or slippers of those they would do honor to, in such a manner as may surprise them on the morrow when they come to dress; being done in imitation of the practice of St. Nicholas, who used in the night-time to throw purses of money in at the windows to marry poor maids withal.

**ZAPIZ**. See **MORLACHIANS**.

**ZARATE** (Augustin), a Spanish historian. In 1543 he was sent to Peru, as treasurer of the Indies, and on his return was employed in the Netherlands. He wrote a *History of the Discovery and Conquest of Peru*; Antwerp, 8vo. 1555. A French translation was printed at Amsterdam in 1700, 2 vols. 12mo.

**ZARERTHAH**, or **SAREFTA**, an ancient city of Sidon, where Elijah lodged with a widow; now called Sarfand. It is still of some note, and its wines are excellent.



**ZAROT** (Anthony), a celebrated printer of Milan, who, in 1470, first introduced signatures.

**ZASLAUS**, duke of Kiovia. See **POLAND**.

**ZEA**, Indian corn, in botany, a genus of plants of the class monœcia; order triandria. The male flowers are placed on distinct spikes; the calyx is biflorous, beardless glume; the corolla a beardless glume; the female calyx is a bivalve glume, as is the corolla. There is one filiform, pendulous style; the seeds are solitary and buried in an oblong receptacle. There is only one species, viz. *Z. mays*, maize. The Indians in New England, and many other parts of America, had no other vegetable but maize or Indian corn for making their bread. They call it weachin; and in the United States of America there is much of the bread of the country made of this grain, not of the European corn. In Italy and Germany also there is a species of maize which is the food of the poor inhabitants. The ear of the maize yields a much greater quantity of grain than any of our corn ears. There are commonly about eight rows of grain in the ear, often more, if the ground be good. Each of these rows contains at least thirty grains, and each of these gives much more corn than a grain of any of our corn. The grains are usually either white or yellowish; but sometimes they are red, bluish, greenish, or olive-colored, and sometimes striped and variegated. This sort of grain, though so essentially necessary to the natives of the country, is yet liable to many accidents. It does not ripen till the end of September; so that the rains often fall heavy upon it while on the stalk, and the birds in general peck it when it is soft and unripe. To defend it from these accidents, it is covered with a thick husk, which keeps off slight rains very well; but the birds, if not frightened away, often eat through it, and devour great quantities of the grain. There are three or four varieties of maize in America. That of Virginia is very tall and robust, growing to seven or eight feet high; that of New England is shorter and lower. And the Indians, farther up in the country, have a yet smaller kind in common use. The stalk of the maize is jointed like the sugar cane; it is very soft and juicy, and the juice is so sweet and saccharine, that a syrup, as sweet as sugar, has often been made of it; and things sweetened with it have been found not distinguishable from those done with sugar. It has not been tried yet whether it will crystallise into sugar; but in all probability it will. The Americans plant this corn any time from the beginning of June, but the best season is the middle of April. The uses of this plant among the Indians are very many. The great article is the making their bread of it. The stalks, when cut up before they are too much dried, are also an excellent winter food for cattle; but they usually leave them on the ground for the cattle to feed on. The husks about the ear are usually separated from the rest, and make a particular sort of fodder, not inferior to our hay. The Indian women have a way of slitting them into narrow parts, and they then weave them artificially into baskets and many other toys. The original way of eating the grain among the Indians was this:—they boiled it whole in water till it swelled and became tender, and then they fed on it, either alone, or ate it with their fish and vension instead of bread. After this, they found the way of boiling it into a sort of pudding, after bruising it in a mortar; but the way of reducing it to flour is the best of all. They do this by parching it carefully in the fire,

without burning, and then beating it in mortars and sifting it. This flour they lay up in bags as their constant provision, and take it out with them when they go to war, eating it either dry or with water. The English have contrived, by mixing it into a stiff paste, either by itself, or with rye or wheat meal, fermenting it with leaven or yeast, and baking it in a hot oven, to make good bread of it. They have likewise found out a method of making good beer, either of the bread or by malting the grain.

**ZEA**, *n. s.*

**ZEA'LOT**,

**ZEA'LOUS**, *adj.*

**ZEA'LOUSLY**, *adv.*

Greek *ζηλος*; Latin *zelus*. } Passionate ardor for any person or cause: he who manifests such ardor; often used in a bad sense: the adjective and adverb correspond with zeal.

In this present age, wherein *zeal* hath drowned charity and skill, meekness will not now suffer any man to marvel, whatsoever he shall hear reproved by whomsoever. *Hooker*.

O Cromwell, Cromwell!

Had I but served my God with half the *zeal*

I served my king, he would not in mine age

Have left me naked to mine enemies. *Shakspeare*.

The fury of *zealots*, intestine bitterness and division, were the greatest occasion of the destruction of Jerusalem. *King Charles*.

We should be not only devout towards God, but *zealous* towards men; endeavouring by all prudent means to recover them out of those snares of the devil, whereby they are taken captive. *Decay of Piety*.

The bare fervour and *zeal* is taken in commutation for much other piety, by many the most eager contenters. *Hammond*.

Our hearts are right with God, and our intentions pious, if we act our temporal affairs with a desire no greater than our necessity, and in actions of religion we be *zealous*, active, and operative, so far as prudence will permit. *Taylor*.

This day at height of noon, came to my sphere

A spirit *zealous*, as he seemed, to know

More of the Almighty's works. *Milton*.

Seriousness and *zeal* in religion are natural to the English. *Tillotson*.

When the sins of a nation have provoked God to forsake it; he suffers those to concur in the most pernicious counsels for enslaving conscience, who pretend to the greatest *zeal* for the liberty of it. *Stillington*.

She with such a *zeal* the cause embraced,

As women, where they will are all in haste;

The father, mother, and the kin beside,

Were overborne by the fury of the tide. *Dryden*.

We must look our prayers be with *zeal* and earnestness; it is not enough that we so far attend them as barely to know what it is we say, but we must put forth all the affection and devotion of our souls.

*Duty of Man*.

It is not at all good to be *zealous* against any person, but only against their crimes. It is better to be *zealous* for things than for persons; but then it should be only for good things; a rule that does certainly exclude all manner of *zeal* for ill things, all manner of *zeal* for little things. *Sprat*.

Are not those men too often the greatest *zealots*, who are most notoriously ignorant? *Id*.

This rebellion has discovered to his majesty who have espoused his interests with *zeal* or indifference.

*Addison*.

A scorn of flattery and a *zeal* for truth. *Pope*.

To enter into a party as into an order of friars, with so resigned an obedience to superiors, is very unsuitable with the civil and religious liberties we so *zealously* assert. *Swift*.

There is nothing noble in a clergyman but burning *zeal* for the salvation of souls; nor any thing poor in his profession, but idleness and worldly spirit. *Law*.



Being thus saved himself, he may be *zealous* in the salvation of souls. *Id.*

**ZEALAND**, a province of the Netherlands, comprising the ancient county of Zealand, and Dutch-Flanders, and bounded on the west by the sea, on the north by Goree and Overflakke, and on the east and south by Brabant and Flanders. The chief part of this province consists of islands at the mouth of the Scheldt, viz. Schouwen, Duiveland, Tholen, Walcheren, North and South Beveland, and Wolfersdyk. The continental part is merely a strip lying along the south bank of the Hond or West Scheldt. The area of the whole is little more than 570 square miles, but the population is about 111,000. Different parts of this province have been at times exposed to heavy calamities, from the sea breaking over the dykes in storms at high tides, particularly in 1302, 1309, 1522, 1532, and 1548. In these catastrophes whole towns and districts have been overflowed and abandoned.

The soil of Zealand is a rich black mould, excellent for pasturage, and the culture of madder, flax, and cole seed, which require a very heavy soil. Wheat is raised chiefly in South Beveland. The air is damp, not from fog, but from exhalations from the fresh water in the ditches and water courses. This affects even the health and longevity of the natives.

**ZEALAND**, the largest of the Danish islands, is situated between the Cattegat and the Baltic, and is separated from Sweden by the Sound, and from Funen by the arm of the sea called the Great Belt. It extends from 55° 2' to 56° 8' N. lat.; has an area of 2600 square miles, with 310,000 inhabitants; and contains the Danish capital Copenhagen. The surface resembles that of the adjacent Danish islands, in being entirely without mountains; but instead of being, like several of them, a dead flat, it is variegated by small hills and fields, intersected by canals, which, in summer, when the air is clear and the ground covered with vegetation, would remind a native of Lombardy of his native country. Such are, in particular, several tracks along the Sound, the Isefjord, and the Cattegat, also the environs of Soroe in the interior.

The soil is rich. It abounds in corn, particularly barley; also in good pasturage, and exports both grain and cattle. The horses are small, but spirited. Wood is also plentiful, except in the middle of the island. Fish abounds in the numerous bays and creeks with which the island is indented in every direction. Here are also concentrated most of the manufactures and trade of Denmark. Zealand is not included in any bishopric like the rest of Denmark, but forms an ecclesiastical superintendency. In a political sense, it is governed by a grand bailiff, and is subdivided into the bailiwicks of Copenhagen, Fredericksborg, Holbeck, Soroe, and Præstoe.

**ZEALAND**, New, two islands in the South Pacific Ocean, first discovered by Tasman. In the year 1642 he traversed the eastern coast from lat. 34° to 43°, and entered the strait called Cook's Strait. It was supposed, from the period of its first discovery to the time of the enterprising captain Cook, that the strait entered by Tasman, separated an island from some vast southern continent; but the British navigator, who sailed round both islands in the years 1769 and 1770, has completely removed this error. The two islands that go by the name of New Zealand are situated between 34° 22' and 47° 25' S. lat., and between 166° and 180° E. long.

The northernmost of these islands is called by the natives Eaheinomauwe, and the southernmost Tavai, or Tovy Poenamoo. Upon referring to the map of this country, it will be seen that Eaheinomauwe, or the northern island, running from the North Cape, which is in lat. 34° 20' S. to Cape Palliser, in 41° 36' S., contains 436 miles in length; and taking the medium breadth, which varies from five miles at Sandy Bay to 180 at the East Cape, at about sixty miles, this extent will include 26,160 square miles, or 16,742,400 square acres; while Tavai Poenamoo, the southern island, extending from 41° 30' to 47° 25' S., stretches 360 miles in length, and estimating its medium breadth at 100 miles, contains not less than 36,000 square miles, or 23,040,000 square acres. These islands, therefore, taken together, will give an area of 62,160 square miles, or 39,782,400 square acres. Such is the calculation made of the dimensions of these islands by Mr. Nicolas, who visited them in the years 1814 and 1815, for the purpose of establishing missionaries. The general face of the country, as far as they had an opportunity of exploring it, is undulating: and the hills rise with a varied ascent, from inconsiderable eminences to lofty mountains. Mr. Nicolas mentions, that, in their excursions into the interior of the northern island, they found that the soil varied in its quality, but generally appeared extremely fertile. The hills were composed, for the greater part, of a stiff clay; and the valleys consisted of a black vegetable mould, producing fern of the most luxuriant growth; while the swamps, occasionally met with, were of trifling extent, and might be drained with little trouble or expense. Every where a fine rich verdure met the eye, and gave a favorable impression of the genial influence of the climate.

Several missionary stations have been established here, for the double purpose of civilising the ignorant natives, and instructing them in the truths of the Christian religion; and the missionaries continue struggling against the serious obstacles opposed to their progress, from the ferocious habits and superstitions of the natives. It was in the year 1814 that the first missionary settlers were established among the New Zealanders, on the Bay of Islands, by the Rev. Samuel Marsden. Many difficulties were encountered; but the settlers still continued their efforts. The settlements were again visited in 1819 by Mr. Marsden, when a tract of land, consisting of 13,000 acres, was purchased from one of the chiefs, and the missionaries were settled on it. He also undertook a journey across the island, on which he discovered a large river, making its way, with its tributary streams, into the sea, on the opposite shore. This river he named Gambia. Several New Zealanders, who were brought to New Holland, and had there an opportunity of witnessing the arts and improvements of civilised life, have been of great service to the missions.

**ZEBEDEE**, the father of St. James and St. John.  
**ZEBRA**, in zoology. See *Equus*.

**ZEBU**, in zoology, a name given by M. de Buffon to the bos indicus of Linné. See *Bos*.

**ZECHARIAH**, the son of Barachiah; and grandson of Iddo, the eleventh of the minor prophets. He returned from Babylon with Zerrubbabel and began to prophesy when very young, in the second year of Darius Hystaspes, A.M. 3484, two months after Haggai. These two greatly encouraged the Jews in building the second temple.



**ZACHARIAH**, a canonical book of the Old Testament. See **SCRIPTURE**.

**ZACHARIAH**, the son of Jehoiadah, a prophet of the blood royal, who was stoned to death by order of his ungrateful cousin, king Joash, in the court of the temple, for reproving him for his idolatry. 2 Chron.

**ZACHARIAH**, the son of Barachiah, a prophet in the reign of Uzziah, whom he encouraged in well doing, but opposed when he attempted to encroach on the priest's office. 2 Chron. xxvi. 5. It is not ascertained which of these two last is the Zacharias mentioned as the last of the martyrs, in Matt. xxiii. 36, and Luke xi. 50, 51.

**ZECHIN**. See **SEQUIN**.

**ZED**, ז. The name of the letter z.

Thou whoreson *zed*, thou unnecessary letter.

*Shakespeare.*

**ZEDEKIAH**, from Heb. זְדַכְיָהוּ and יְהוֹיָכִן, i. e. the justice of the Lord, the son of Josiah, and the last king of Judah before the captivity, so named by Nebuchadnezzar, who made him king, upon carrying his nephew Jeconiah captive. But rebelling eleven years afterwards, the king of Babylon put out his eyes, killed his sons, and sent him in chains to Babylon, where he died. See **JUDAH**.

**ZEDEKIAH**, two false prophets of Israel, under Ahab. 1 Kings xxiii.

**ZEDOARY**, in botany and materia medica. See **KEMPFERIA** and **MATERIA MEDICA**.

**ZEINE**. The zeine of John Gorham is obtained from maize or Indian corn, by infusing it in water, filtering and treating with alcohol the matter insoluble in the former liquid, and evaporating the alcoholic solution. We thus obtain a yellow substance having the appearance of wax; it is soft, ductile, tough, elastic, insipid, nearly void of smell, and denser than water. It affords no ammonia on decomposition by heat; though it approaches in its nature to gluten.

**ZELD**, or **CELLE**, a city of Germany, in Hanover, at the confluence of the Fuhse and Aller. It is surrounded with a mound and moat, but has suburbs on the outside; and the palace belonging to the royal family is surrounded by a separate wall and ditch. It has several charitable institutions, an orphan house, a lunatic hospital, a poor-house; also a school of surgery, and a society of agriculture. It is, however, best known by its court of appeal for the Hanoverian territory at large. The town is tolerably built, and has some trade; and the inhabitants, who are chiefly Lutherans, are in number about 8200. Zell was formerly the capital of a duchy belonging to a distinct branch of the house of Brunswick: on the extinction of this branch, in 1705, their possessions devolved to the elector. The ducal palace was the residence of the unfortunate Caroline Matilda, queen of Denmark, from 1772 till her death in 1775; and a monument of Saxon marble is erected to her memory in the garden. Twenty-one miles N. N. E. of Hanover, and sixty-five south of Hamburg.

**ZELOTTI** (John Baptist), an eminent painter, born at Verona, in 1532, and educated under Titian. He died in 1592.

**ZEMARAIM**, a city of the Benjamites, near Bethel, and a mountain so named at the foot of which Abijah defeated Jeroboam I., and 500,000 Israelites were killed. 2 Chron. xiii. 7.

**ZEMARITES**, the descendants of Canaan, by his tenth son. They peopled Sinyra in Phœnicia, near Orthosia.

**ZEMINDAR**, in its original meaning, signifies a great landholder of Bengal: but is more strictly applicable to those who have their title constituted or confirmed by a patent or charter from government, by which they hold their lands or **zemindaries** upon certain conditions. It appears from history, that, in times prior to the irruption of the Mahometans, the rajahs who held their residence at Delhy, and possessed the sovereignty of Hindostan, deputed officers to collect their revenues. The word **zemindar** is Persian, and that language can have no currency in the countries of India, until it was introduced by the people of Persia. When the emperor Shebba-ul-Dien Chory conquered the empire of Hindostan at the end of the twelfth century, he left sultan Cutub-ul-Dien to be his viceroy at Delhy, and administer the government of Hindostan. From that time the customs and practices of the Mahometans began gradually to be established in India: their armies were sent into the countries of the reduced rajahs, under the command of omrahs, in order to preserve the conquest; and lands were allotted to them to defray the expense.

**ZENAS**, a lawyer, who was an early Christian convert and companion of St. Paul. Tit. iii. 13.

**ZEND**, or **ZENDAVESTA**, a book ascribed to Zoroaster, and containing his pretended revelations; which the ancient magicians and modern Persians, called also Gaurs, observe and reverence in the same manner as the Christians do the Bible, and the Mahometans do the Koran, making it the sole rule both of their faith and manners. The word, it is said, originally signifies any instrument used for kindling fire, and is applied to this book to denote its aptitude for kindling the flame of religion in the hearts of those who read it. See **GENTOOS**, **MYTHOLOGY**, and **PHILOLOGY**. The **Zend** contains a reformed system of magianism; teaching that there is a supreme Being, eternal, self-existent, and independent, who created both light and darkness, out of which he made all other things; that these are in a state of conflict, which will continue till the end of the world; and then there shall be a general resurrection and judgment; and that just retribution shall be rendered unto men according to their works; that the angel of darkness with his followers shall be consigned to a place of everlasting darkness and punishment, and the angel of light with his disciples introduced into a state of everlasting light and happiness; after which light and darkness shall no more interfere with each other. The **Zend** also enjoys the constant maintenance of sacred fires and fire temples for religious worship; the distinction of clean and unclean beasts; the payment of tithes to priests, which are to be of one family or tribe; a multitude of washings and purifications, resembling those of the Jewish law; and a variety of rules and exhortations for the exercise of benevolence and charity. In this book there are many passages evidently taken out of the Scriptures of the Old Testament, particularly out of the Psalms of David. The author represents Adam and Eve as the first parents of all mankind, gives in substance the same account of the creation and deluge with Moses, differing indeed with regard to the former, by converting the six days of the Mosaic account into six times, comprehending in the whole 365 days; and speaks also of Abraham, Joseph, Moses, and Solomon. Moreover, Dr. Baumgarten asserts, that this work contains doctrines, opinions, and facts, actually borrowed



from the Jews, Christians, and Mahometans; whence, and from other circumstances, he concludes that both the history and writings of this prophet were probably invented in the later ages, when the fire worshippers, under the Mahometan government, thought fit to vindicate their religion from the suspicion of idolatry. At whatever period the Zend may have been written, we are assured by Dr. Hyde that it is in the pure old Persian language, and in the character called Peplavi. Some parts of it contain the original text, and others Zoroaster's second thoughts subjoined, for explaining more fully his doctrine. These were occasioned by the opposition of adversaries, and unforeseen circumstances which occurred during the fabrication of the imposture. About 300 years ago, when the old Persian language had become antiquated and little understood, one of the de-tours or high-priests among the Persees composed the Satta, which is a compendium, in the vulgar or modern Persic tongue, of those parts of the Zend that relate to religion, or a kind of code of canons and precepts, drawn from the theological writings of Zoroaster, serving as an authoritative rule of faith and practice of his followers. The Satta is written in a low kind of Persic verse, and, as Dr. Hyde informs us, it is bonorum et malorum farrago, having made many good and pious things, and others very superstitious and trifling. See PERSEES and ZOROASTER.

ZENDICISM. See SARACENS.

ZENETI. See ALGERINES and ALGIERS.

ZENGH. See SEGNA.

ZENITH, *n. s.* Arabic. The point over head opposite to the nadir.

Fond men! if we believe that men do live  
Under the zenith of both frozen poles,

Though none come thence advertisement to give,  
Why bear we not the like faith of our souls? *Davies.*

These seasons are designed by the motions of the sun; when that approaches nearest our zenith, or vertical point, we call it summer. *Brown.*

ZENITH. See NADIR.

ZENITH SECTOR. See ASTRONOMY, Index.

ZENO, the founder of the sect of the Stoics, was born about 300 years B. C. at Citium in Cyprus. This place having been originally peopled by a colony of Phœnicians, Zeno is sometimes called a Phœnician. His father was by profession a merchant, but, discovering in his son a strong propensity to learning, he early devoted him to philosophy. In his mercantile capacity he had frequent occasion to visit Athens, where he purchased for his son several of the writings of the most eminent Socratic philosophers. These he read with great avidity; and, when he was about thirty years of age, he determined to take a voyage to a city which was so celebrated both as a mart of trade and of science. If it be true, as some writers relate, that he brought with him a valuable cargo of Phœnician purple, which was lost by shipwreck upon the coast of Piræus, this circumstance will account for the facility with which he at first attached himself to a sect whose leading principle was the contempt of riches. Upon his first arrival in Athens, going accidentally into the shop of a bookseller, he took up a volume of the Commentaries of Xenophon; and after reading a few passages, was so much delighted with the work, and formed so high an idea of the author, that he asked the bookseller where he might meet

with such men. Crates, the Cynic philosopher, happening at that instant to be passing by, the bookseller pointed to him, and said, 'Follow that man.' Zeno attended upon the instructions of Crates, and was so well pleased with his doctrine that he became one of his disciples. But, though he admired the general principles of the Cynic school, he could not easily reconcile himself to their peculiar manners. Besides, his inquisitive turn of mind would not allow him to adopt that indifference to every scientific enquiry which was one of the characteristic distinctions of the sect. He therefore attended upon other masters, who professed to instruct their disciples in the nature and causes of things. When Crates, displeased at his following other philosophers, attempted to drag him by force out of the school of Stilpo, Zeno said to him, 'You may seize my body, but Stilpo has laid hold of my mind.' After continuing to attend upon the lectures of Stilpo several years, he passed over to other schools, particularly to those of Xenocrates and Diodorus Cronus. By the latter he was instructed in dialectics. He was so much delighted with this branch of study, that he presented to his master a large pecuniary gratuity, in return for his free communication of some of his ingenious subtleties. At last, after attending almost every other master, he offered himself as a disciple of Polemo. This philosopher appears to have been aware that Zeno's intention, in thus removing from one school to another, was to collect materials from various quarters for a new system of his own; for, when he came into Polemo's school, he said to him, 'I am no stranger, Zeno, to your Phœnician arts, I perceive that your design is to creep slyly into my garden, and steal away my fruit.' Polemo was not mistaken in his opinion. Having made himself master of the tenets of others, Zeno determined to become the founder of a new sect. The place which he made choice of for his school was a public portico, adorned with the pictures of Polygnotus, and other eminent painters. It was the most famous portico in Athens, and called, by way of eminence, *Stoa*, the porch. It was from this circumstance that the followers of Zeno were called Stoics. See STOICS. In his person Zeno was tall and slender; his aspect was severe, and his brow contracted. His constitution was feeble, but he preserved his health by great abstemiousness. The supplies of his table consisted of figs, bread, and honey; notwithstanding which, he was frequently honored with the company of great men. In public company, to avoid every appearance of an assuming temper, he commonly took the lowest place. Indeed so great was his modesty, that he seldom chose to mingle with a crowd, or wished for the company of more than two or three friends at once. He paid more attention to neatness and decorum in external appearance than the Cynic philosophers. In his dress indeed he was plain, and in all his expenses frugal; but this is not to be imputed to avarice, but a contempt of external magnificence. He showed as much respect to the poor as to the rich; and conversed freely with persons of the meanest occupations. He had only one servant, or, according to Seneca, none. Zeno lived to the extreme age of ninety-eight; and at last, in consequence of an accident, voluntarily put an end to his life. As he was walking out of his school he fell down, and in the fall broke one of his fingers,



upon which he was so affected with a consciousness of infirmity, that, striking the earth, he said, 'Why am I thus importuned? I obey thy summons,' and immediately went home and strangled himself. He died in the first year of the 129th Olympiad. The Athenians, at the request of Antigonus, erected a monument to his memory in the Ceramicum.

ZENO, a celebrated Epicurean philosopher, born at Sidon, who had Cicero and Pomponius Atticus for his disciples, and who wrote a book against the mathematics, which, as well as that of Possulinius's refutation of it, is lost.

ZENO ELEATES, an eminent Grecian philosopher, was born at Elea about 504 years B.C. He was a zealous friend of civil liberty, and is celebrated for his courageous and successful opposition to tyrants; but the inconsistency of the stories related by different writers concerning him in a great measure destroys their credit. He chose to reside in his small native city of Elea rather than at Athens, because it afforded freer scope to his independent and generous spirit, which could not easily submit to the restraints of authority. It is related that he vindicated the warmth with which he resented reproach, by saying, 'If I were indifferent to censure, I should also be indifferent to praise.' The invention of the dialectic art has been improperly ascribed to Zeno: but there can be no doubt that this philosopher, and other metaphysical disputants in the eleatic sect, employed much ingenuity and subtlety in exhibiting examples of most of the logical arts, which were afterwards reduced to rule by Aristotle and others. According to Aristotle, he taught, that nothing can be produced either from that which is similar or dissimilar; that there is only one being, God; who is eternal, homogeneous and spherical, neither finite nor infinite, neither quiescent nor moveable; that there are many worlds; that there is in nature no vacuum; that all bodies are composed of four elements, heat and moisture, cold and dryness; and that the body of man is from the earth, and his soul an equal mixture of these four elements. He argued with great subtlety against the possibility of motion. If Seneca's account of this philosopher deserves credit, he reached the highest point of scepticism, and denied the real existence of external objects. The truth is, that, after all that has been advanced by different writers, it is impossible to determine whether Zeno understood the term one, metaphysically, logically, or physically; or whether he admitted or denied a nature properly divine.

ZENOBIA, queen of Palmyra. See PALMYRA.

ZENOBII INSULE, islands in the Adriatic.

ZENODOTUS, a native of Troezen; who wrote a history of Umbria. Diod.

ZEOLITE, in mineralogy, the name of a very extensive mineral genus, containing the following species:—1. Dodecahedral zeolite or leucite; 2. Hexahedral zeolite or analcime; 3. Rhomboidal zeolite, chabasite, or chabasie; 4. Pyramidal zeolite, or cross-stone; 5. Diprismatic zeolite, or laumontite; 6. Prismatic zeolite, or mesotype, divided into three sub-species,—fibrous zeolite, natrolite, and mealy zeolite; 7. Prismatoidal zeolite, or stilbite, comprehending foliated zeolite, and radiated zeolite; 8. Axifrangible zeolite, or apophyllite. The following may be more distinctly specified.

(6.) *Prismatic zeolite or mesotype.*

i. *Fibrous zeolite*, of which there are two kinds; the acicular or needle zeolite, and common fibrous zeolite.

(a.) Acicular, or needle zeolite, the mesotype of Häuy. Colors grayish, yellowish, or reddish-white. Massive, in distinct concretions, and crystallised. Primitive form, a prism of  $91^{\circ} 25'$ . The following are secondary figures:—An acicular rectangular four-sided prism, very flatly acuminate with four planes, set on the lateral planes; sometimes two of the acuminate planes disappear, when there is formed an acute bevelment, or the prism is sometimes truncated on the edges. Lateral planes longitudinally streaked. Shining, inclining to pearly. Cleavage two-fold. Fracture small-grained, uneven. Fragments splintery. Translucent. Refracts double. As hard as apatite. Brittle. Specific gravity 2.0 to 2.3. It intumesces before the blowpipe, and forms a jelly with acids. It becomes elastic by heating, and retains this property some time after it has cooled. The free extremity of the crystal with the acumination, shows positive, the attached end, negative electricity. Its constituents are silica 50.24, alumina 29.3, lime 9.46, water 10.—Vauquelin. It occurs in secondary trap-rocks, as in basalt, green stone, and amygdaloid. It is found near the village of Old Kilpatrick, Dumbartonshire; in Ayrshire and Perthshire, always in trap rocks; in Iceland and in the Faroe Islands.

(b.) Common fibrous zeolite. Color white. Massive, in distinct concretions, and in capillary crystals. Glimmering, pearly. Fragments splintery. Faintly translucent. Hardness as before. Rather brittle. Specific gravity 2.16 to 2.2. Chemical characters and situations as above. Its constituents are, silica 49, alumina 27, soda 17, water 9.5.—Smithson.

ii. *Mealy zeolite*.—Color white, of various shades. Massive, imitative, in a crust, or in delicate fibrous concretions. Feebly glimmering. Fracture coarse earthy. Opaque. The mass is soft, but the minute parts as hard as the preceding. Sectile. Most easily frangible. Does not adhere to the tongue. Feels meagre. Sometimes so light as nearly to float on water. It intumesces, and gelatinizes as the preceding. Its constituents are, silica 60, alumina 15.6, lime 8, oxide of iron 1.8, loss by exposure to heat 11.6.—Hisinger. It occurs like the others. It is found near Tantallon Castle, in East Lothian, and in the islands of Skye, Mull, and Canna.

(7.) *Prismatoidal zeolite, or stilbite*. Of this there are two sub-species; the foliated and radiated.

i. *Foliated zeolite*, the stilbite of Häuy. Color white, of various shades. Massive, disseminated, imitative, in distinct granular concretions, and crystallised. Primitive form, a prism of  $99^{\circ} 22'$ . Secondary forms are, a low, oblique, four-sided prism, variously truncated; a low equiangular six-sided prism; and an eight-sided prism, from truncation of all the edges of the four-sided prism. Lateral planes transversely streaked. Shining pearly. Cleavage single. Fracture conchoidal. Translucent. Refracts single. As hard as calcareous spar. Brittle. Specific gravity 2 to 2.2. It intumesces and phosphoresces before the blowpipe, but does not form a jelly with acids. Its constituents are, silica 52.6, alumina 17.5, lime 9, water 18.5.—Vauquelin. It occurs principally in secondary amygdaloid, either in drusy cavities or



in contemporaneous veins. It is also met with in primitive and transition mountains. Very beautiful specimens of the red foliated and radiated zeolites are found at Carbeth in Stirlingshire, and at Lock Humphrey in Dumbartonshire; also in the secondary trap rocks of the Hebrides, as of Skye, Canna, and Mull; and in the north of Ireland.

ii. *Radiated zeolite*.—Stilbite of Haiiy. Colors yellowish-white and grayish-white. Massive, in angular pieces, in prismatic and granular concretions, and crystallised in a rectangular four-sided prism variously modified by acuminations. Shining, pearly. Translucent. Hardness and chemical characters as above. Brittle. Specific gravity 2.14. Its constituents are, silica 40.98, alumina 39.09, lime 10.95, water 16.5.—Meyer. Its situations are as the preceding.—Jameson.

**ZEOPYRUM**, a kind of grain between spelt and wheat.—Bailey.

**ZEPHANIAH**, one of twelve minor prophets, the son of Cushi and grandson of Gedaliah, prophesied in the reign of Josiah, and was contemporary with Jeremiah.

**ZEPHANIAH**, a canonical book of the Old Testament. See **SCRIPTURE**.

**ZEPHANIAH**, the second priest or sagan, under Seraiah, in the reign of Zedekiah, who often consulted Jeremiah by him; though he did not follow his advice. Jer. xxi., xxvii.

**ZE'PHYR**, *n. s.* } Latin *zephyrus*. The west  
**ZE'PHYRUS**. } wind; and, poetically, any  
calm soft wind.

They are as gentle

As zephyrs blowing below the violet.

Shakespeare.

*Zephyr* you shall see a youth with a merry countenance, holding in his hand a swan with wings displayed, as about to sing.

Peacham.

Mild as when *Zephyrus* on Flora breathes.

Milton.

**ZEPHYRUS**, in the mythology, the god of the west wind, was the son of Astreus and Aurora, and the lover of the nymph Chloris according to the Greeks, or of Flora according to the Romans; and as presiding over the growth of fruits and flowers. He is described as giving a refreshing coolness to the air by his soft and agreeable breath, and as moderating the heat of summer by fanning the air with his silken wings. He is depicted under the form of a youth, with a very tender air, with wings resembling those of the butterfly, and with his head crowned with flowers. As the poets of Greece and Rome lived in a warm climate, they are lavish in their praise of this beneficent deity, and under his name describe the pleasure and advantage they received from the western breezes.

**ZERDA**. See **CANIS**.

**ZERTA**, or the **ZERTE**, a fish caught in the rivers of Italy and some other places, of the figure of the chub, and called by authors *capito anadromus*, and the *blike*. It seldom grows to more than two pounds weight, and at times lives in rivers, at times in the sea; and is esteemed a very well tasted fish, especially a little before the season of its spawning. The *zerite* is that species of cyprinus described by Gesner and others under the name of *capito anadromus*.

**ZEST**, *n. s.* Fr. *zest*. The peel of an orange squeezed into wine; a relish.

Almighty vanity! to thee they owe

Their zest of pleasure, and their balm of woe. Young.

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**ZETLAND**. See **SHETLAND**.

**ZEVEN**. See **CLOSTER SEVEN**.

**ZEUS** (*Zeug*), in mythology, a name of Jupiter; explained to mean Noah. See **DELUGE**, and **SANCHONIATHO**.

**ZEUS**, in ichthyology, a genus of fishes of the order of thoracici. The head is compressed, and declines, the upper lip being vaulted over by a transverse membrane; the tongue is subulated; there are seven rays in the gill membrane; and the body is compressed. The species are eight: one of them is described under *Opha*. The most remarkable are these:—1. *Z. faber*, the *doree*. It is of a hideous form, its body is oval, and greatly compressed on the sides; the head large; the snout vastly projecting; the mouth very wide; the teeth very small; the eyes great, the irides yellow; the lateral line oddly distorted, sinking at each end, and rising near the back in the middle; beneath it on each side is a round black spot. The tail is round at the end, and consists of fifteen yellow rays. The color of the sides is olive, varied with light blue and white, and while living is very resplendent, and as if gilt; for which reason it is called the *doree*. The largest fish we have heard of weighed twelve pounds. Superstition has made the *doree* rival to the haddock, for the honor of having been the fish out of whose mouth St. Peter took the tribute money, leaving on its sides the marks of his finger and thumb. In our own country it was very long before this fish attracted our notice, as edible. We are indebted to the late Mr. Quin for adding a most delicious fish to our table, who, overcoming all the vulgar prejudices on account of its deformity, has effectually established its reputation. This fish was supposed to be found only in the southern seas of this kingdom, but it has been discovered likewise on the coast of Anglesey. Those of the greatest size are taken in the Bay of Biscay, off the French coasts; they are also very common in the Mediterranean: Ovid must therefore have styled it *rarus faber*, on account of its excellency, not its scarcity.

2. *Z. Opa*. See **OPAH**.

3. *Z. Vomer*. See **ABACATUAIA**.

**ZEUTH**. See **DELUGE**.

**ZEUXIS**, a celebrated painter of antiquity, who flourished about 400 years B.C. He was born at Heraclea; but, as there have been many cities of that name, it cannot be certainly determined which of them had the honor of his birth. Some conjecture that it was Heraclea near Crotona in Italy. He carried painting to a much higher degree of perfection than Apollodorus had left it; discovered the art of properly disposing of lights and shades, and particularly excelled in coloring. He amassed immense riches; and then resolved to sell no more of his pictures, but gave them away; saying, 'That he could not set a price on them equal to their value.' Pliny observes that this admirable painter, disputing for the prize of painting with Parrhasius, painted some grapes so naturally that the birds flew down to peck them. Parrhasius, on the other hand, painted a curtain so very artfully, that Zeuxis mistaking it for a real one that hid his rival's work, ordered the curtain to be drawn aside, to show what Parrhasius had done; but, having found his mistake, he ingenuously confessed himself vanquished, since he had only imposed upon birds, while Parrhasius had deceived even a man.



ter of the art. Another time he painted a boy loaded with grapes; when the birds also flew to this picture, at which he was vexed; and confessed that his work was not sufficiently finished, since, had he painted the boy as perfectly as the grapes, the birds would have been afraid of him. Archelaus, king of Macedon, made use of Zeuxis's pencil for the embellishment of his palace. One of this painter's finest pieces was a Hercules strangling two serpents in his cradle, in the presence of his affrighted mother; but he himself chiefly esteemed his *Athleta*, or *Champion*, under which he placed a Greek verse, that afterwards became very famous, and in which he says, 'That it was easier to criticise than to imitate the picture.' He made a present of his *Alcmena* to the *Agri-genitines*. Zeuxis did not value himself on speedily finishing his pictures; but, knowing that *Agatharchus* gloried in his being able to paint with ease and in a little time, he said, 'That for his part he, on the contrary, gloried in his slowness: and, if he was long in painting, it was because he painted for eternity.' Carlo Dati wrote in Italian the life of Zeuxis, of *Parrhasius*, *Apelles*, and *Protogenes*, which were printed at Florence in 1667.

**ZIA**, an island in the Grecian Archipelago, one of the *Cyclades*, anciently *Ceös* and *Hadrassa*; sixteen miles in circumference.

**ZIA**, or **ZEA**, the ancient *Ceös*, an island of the Greek archipelago, in the group of the *Cyclades*, situated to the south-west of *Negroponte*, and about ten miles from *Cape Colonna* (*Sunium*), the southern point of *Attica*. Its length is fifteen miles; its breadth eight. Its soil is fertile, and tolerably cultivated. Its products are vines, mulberries, figs, cotton, and corn. The inhabitants, almost all Greeks, are in number about 6000.

**ZIEGLER** (Gaspar), professor of law, at *Wittemberg*, was a native of *Leipsic*. He published, 1. *De Milite Episcopo*; 2. *De Diaconis et de Diaconissis*; 3. *De Episcopis*. He died in 1690.

**ZIEGLER** (James), a learned divine and mathematician of *Suabia*. He wrote, 1. *Notes on certain Passages of Scripture*, in 1548, folio; 2. *Description of the Holy Land*, 1586, folio; 3. *De Constructione Sphære*, 4to. He died in 1549.

**ZIEGLER** (Jerome), a learned professor of poetry, in *Ingoldstadt*. He published poems of his own; and *Aventine's Annals of Bavaria*, in 1554. See **AVENTINE**.

**ZIMB**, in entomology, a venomous insect of *Abyssinia*. This animal according to Mr. Bruce, who has given a figure of it, is the most troublesome to quadrupeds that can be imagined. It infests those places within the tropical rains where the soil is black and loamy, and no other place whatever. It has not been described by any other naturalist. Mr. Bruce is of opinion that this is the fly mentioned by *Isaiah*, chap. vii. 18, 19.

**ZIMBIS**, in ichthyology, the sea snail. See **BAMBA**.

**ZIMENT WATER**, or copper water, in natural history, the name by which some have called water found in places where there are copper mines, and lightly impregnated with particles of that metal. The most famous spring of this kind is about a mile distant from *Newsol* in Hungary, in the great copper mine called by the Germans *Herrn-grundt*. The water in this mine is found at different depths, and is received into basons, for the purpose of separating the copper from it: in some of those it

is much more sated with this metal than in others, and will make the supposed change of iron into that metal much sooner. The most common pieces of iron used in the experiments are horse shoes, nails, and the like; and they are found very little altered in shape, after the operation, except that their surfaces are more raised. The water appears greenish in the basin, where it stands; but, if a glass of it be taken up, it looks clear as crystal: it has no smell, but a strong sulphuric astringent taste, insomuch that the lips and tongue are blistered and scorch upon tasting it.

**ZIMMERMANN** (Matthias), a learned Protestant divine, born at *Eperies*, in 1625. He became minister at *Meissen*. He published, 1. *Amanitates Historiæ Ecclesiasticæ*, 4to.; 2. *Florilegium Philologico Historicum*, 4to. He died in 1689.

**ZIMMERMANN** (John George), M.D., a celebrated physician, born at *Brug*, in *Berne*, in 1728. He studied at *Göttingen*, under *Haller*, and afterwards under *Gaubius*. His writings recommended him to *Frederick the Great of Prussia*; whom he attended in his last illness. In April 1768 he was appointed by the regency of *Hanover* physician to king *George III*. He cultivated the English language to such perfection that he relished the beauties of *Shakspeare*, *Pope*, *Thomson*, &c., as well as any native. His chief works are, 1. A poem entitled *The Subversion of Lisbon*, 1755; 2. *An Essay on Solitude*, in 4 vols., which has been translated into various languages; 3. *An Essay on Lavater's Physiognomy*; 4. *Agreeable and Instructive Tales*; 5. *A Defence of Frederick the Great against Count Mirabeau*; 6. *Life and Character of Frederick the Great*; 7. *A Physiological Dissertation on Irritability*, &c. He married a most amiable and accomplished lady, who died on the 23d of June 1770, and was soon followed by her son and daughter. Some years after he married the very accomplished and learned *Miss Berger*, daughter of *Dr. Berger*, the king's physician at *Lunen-berg*, who survived him. He died October 7th 1795.

**ZIMOME**. The gluten of wheat, treated by alcohol, is reduced to the third part of its bulk. This diminution is owing, not merely to the loss of gliadine, but likewise to that of water. The residue is zimome, which may be obtained pure by boiling it repeatedly in alcohol, or by digesting it in repeated portions of that liquid cold, till it no longer gives out any gliadine. Zimome thus purified has the form of small globules, or constitutes a shapeless mass, which is hard, tough, destitute of cohesion, and of an ash-white color. When washed in water, it recovers part of its viscosity, and becomes quickly brown, when left in contact of the air. It is specifically heavier than water. Its mode of fermenting is no longer that of gluten; for when it putrefies it exhales a fetid urinous odor. It dissolves completely in vinegar, and in the mineral acids at a boiling temperature. With caustic potash, it combines and forms a kind of soap. When put into lime water, or into the solutions of the alkaline carbonates, it becomes harder and assumes a new appearance without dissolving. When thrown upon red hot coals, it exhales an odor similar to that of burning hair or hoofs, and burns with flame. Zimome is to be found in several parts of vegetables. It produces various kinds of fermentation, according to the nature of the substance with which it comes in contact.



ZIN, in ancient geography, a wilderness encompassing Idumea, at least on the south and west as far as Palestine or Canaan; but, according to Wells, on the east of Edom, and north of Ezion-Gaber.

ZINC is of a bluish-white color, somewhat brighter than lead; of considerable hardness, and so malleable as not to be broken with the hammer, though it cannot be much extended in this way. It is very easily extended by the rollers of the flattening mill. Its specific gravity is from 6.9 to 7.2. In a temperature between  $210^{\circ}$  and  $300^{\circ}$  of Fahrenheit, it has so much ductility that it can be drawn into wire, as well as laminated, for which a patent has been obtained by Messrs. Hobson and Sylvester of Sheffield. The zinc thus annealed and wrought retains the malleability it had acquired. When broken by bending, its texture appears as if composed of cubical grains. On account of its imperfect malleability, it is difficult to reduce it into small parts by filing or hammering; but it may be granulated, like the malleable metals, by pouring it, when fused, into cold water; or, if it be heated nearly to melting, it is then sufficiently brittle to be pulverised. It melts long before ignition, at about  $700^{\circ}$  of Fahrenheit's thermometer; and, soon after it becomes red hot, it burns with a dazzling white flame, of a bluish or yellowish tinge, and is oxidised with such rapidity that it flies up in the form of white flowers, called the flowers of zinc, or philosophical wool. These are generated so plentifully, that the access of air is soon intercepted; and the combustion ceases, unless the matter be stirred, and a considerable heat kept up. The white oxide of zinc is not volatile, but is driven up merely by the force of the combustion. When it is again urged by a strong heat, it becomes converted into a clear yellow glass. If zinc be heated in closed vessels, it rises without decomposition.

The oxide of zinc, according to the experiments of MM. Gay Lussac, and Berzelius, consists of 100 metal + 2.44 oxygen; whence the prime equivalent appears to be 4.1. Sir H. Davy makes it 4.4 from his own and his brother's experiments. When zinc is burned in chlorine, a solid substance is formed of a whitish-gray color, and semitransparent. This is the only chloride of zinc, as there is only one oxide of the metal. It may likewise be made by heating together zinc filings and corrosive sublimate. It is as soft as wax, fuses at a temperature a little above  $212^{\circ}$ , and rises in the gaseous form at a heat much below ignition. Its taste is intensely acrid, and it corrodes the skin. It acts upon water, and dissolves in it, producing much heat; and its solution, decomposed by an alkali, affords the white hydrated oxide of zinc. This chloride has been called butter of zinc, and muriate of zinc. From the experiments of Dr. John Davy, it consists of nearly equal weights of zinc and chlorine. The equivalent proportions appear to be, zinc 4.25 + chlorine 4.5.

Blende is the native sulphuret of zinc. The two bodies are difficult to combine artificially. The salts of zinc possess the following general characters:—

1. They generally yield colorless solutions with water.
2. Ferropotassiate of potash, hydrosulphuret of potash, hydriodate of potash, sulphuretted hydrogen, and alkalis, occasion white precipitates.
3. Infusion of galls produces no precipitate.

The diluted sulphuric acid dissolves zinc: at the same time that the temperature of the solvent is increased, and much hydrogen escapes, an undissolved residue is left, which has been supposed to consist of plumbago. Proust, however, says, that it is a mixture of arsenic, lead, and copper. As the combination of the sulphuric acid and the oxide proceeds, the temperature diminishes, and the sulphate of zinc, which is more soluble in hot than cold water, begins to separate, and disturb the transparency of the fluid. If more water be added, the salt may be obtained in fine prismatic four-sided crystals. The white vitriol, or copperas, usually sold, is crystallised hastily, in the same manner as loaf sugar, which on this account it resembles in appearance; it is slightly efflorescent. The white oxide of zinc is soluble in the sulphuric acid, and forms the same salt as is afforded by zinc itself.

The hydrogen gas that is extricated from water by the action of sulphuric acid carries up with it a portion of zinc, which is apparently dissolved in it; but this is deposited spontaneously, at least in part, if not wholly, by standing. It burns with a brighter flame than common hydrogen.

Sulphate of zinc is prepared in the large way from some varieties of the native sulphuret. The ore is roasted, wetted with water, and exposed to the air. The sulphur attracts oxygen, and is converted into sulphuric acid; and the metal, being at the same time oxidised, combines with the acid. After some time the sulphate is extracted by solution in water; and, the solution being evaporated to dryness, the mass is run into moulds. Thus the white vitriol of the shops generally contains a small portion of iron, and sometimes of lead.

Sulphurous acid dissolves zinc, and sulphuretted hydrogen is evolved. The solution, by exposure to the air, deposits needle crystals, which, according to Fourcroy and Vauquelin, are sulphuretted sulphite of zinc. By dissolving oxide of zinc in sulphurous acid, the pure sulphite is obtained. This is soluble, and crystallisable.

Diluted nitric acid combines rapidly with zinc, and produces much heat, at the same time that a large quantity of nitrous air flies off. The solution is very caustic, and affords crystals by evaporation and cooling, which slightly detonate upon hot coals, and leave oxide of zinc behind. This salt is deliquescent.

Muriatic acid acts very strongly upon zinc, and disengages much hydrogen; the solution, when evaporated, does not afford crystals, but becomes gelatinous. By a strong heat it is partly decomposed, a portion of the acid being expelled, and part of the muriate sublimes and condenses in a congeries of prisms.

Phosphoric acid dissolves zinc. The phosphate does not crystallise, but becomes gelatinous, and may be fused by a strong heat. The concrete phosphoric acid heated with zinc filings is decomposed.

Fluoric acid likewise dissolves zinc.

The boracic acid digested with zinc becomes milky; and, if a solution of borax be added to a solution of muriate or nitrate of zinc, an insoluble borate of zinc is thrown down.

A solution of carbonic acid in water dissolves a small quantity of zinc, and more readily its oxide. If the solution be exposed to the air, a thin iridescent pellicle forms on its surface.



The acetic acid readily dissolves zinc, and yields by evaporation crystals of acetate of zinc, forming rhomboidal or hexagonal plates. These are not altered by exposure to the air, are soluble in water, and burn with a blue flame.

The succinic acid dissolves zinc with effervescence, and the solution yields long, slender, foliated crystals.

Zinc is readily dissolved in benzoic acid, and the solution yields needle-shaped crystals, which are soluble both in water and in alcohol. Heat decomposes them by volatilising their acid.

The oxalic acid attacks zinc with a violent effervescence, and a white powder soon subsides, which is oxalate of zinc. If oxalic acid be dropped into a solution of sulphate, nitrate, or muriate of zinc, the same salt is precipitated; it being scarcely soluble in water, unless an access of acid be present. It contains seventy-five per cent. of metal.

The tartaric acid likewise dissolves zinc with effervescence, and forms a salt difficult of solution in water.

The citric acid attacks zinc with effervescence, and small brilliant crystals of citrate of zinc are gradually deposited, which are insoluble in water. Their taste is styptic and metallic, and they are composed of equal parts of the acid and of oxide of zinc.

The malic acid dissolves zinc, and affords beautiful crystals by evaporation.

Lactic acid acts upon zinc with effervescence, and produces a crystallisable salt.

The metallic acids likewise combine with zinc. If arsenic acid be poured on it, an effervescence takes place, arsenical hydrogen gas is emitted, and a black powder falls down, which is arsenic in the metallic state, the zinc having deprived a portion of the arsenic, as well as the water, of its oxygen. If one part of zinc filings and two parts of dry arsenic acid be distilled in a retort, a violent detonation takes place when the retort becomes red, occasioned by the sudden absorption of the oxygen of the acid by the zinc. The arseniate of zinc may be precipitated by pouring arsenic acid into the solution of acetate of zinc, or by mixing a solution of an alkaline arseniate with that of sulphate of zinc. It is a white powder, insoluble in water. By a similar process zinc may be combined with the molybdic acid, and with the oxide of tungsten, the tungstic acid of some, with both of which it forms a white insoluble compound; and with the chromic acid, the result of which compound is equally insoluble, but of an orange red color.

Zinc likewise forms some triple salts. Thus, if the white oxide of zinc be boiled in a solution of muriate of ammonia, a considerable portion is dissolved; and, though part of the oxide is again deposited as the solution cools, some of it remains combined with the acid and alkali in the solution, and is not precipitable either by pure alkalies or their carbonates. This triple salt does not crystallise.

If the acidulous tartrate of potash be boiled in water with zinc filings, a triple compound will be formed, which is very soluble in water, but not easily crystallised. This, like the preceding, cannot be precipitated from its solution either by pure or carbonated alkalies.

A triple sulphate of zinc and iron may be formed by mixing together the sulphates of iron and of zinc dissolved in water, or by dissolving iron and

zinc in dilute sulphuric acid. This salt crystallises in rhomboids, which nearly resemble the sulphate of zinc in figure, but are of a pale green color. In taste, and in degree of solubility, it differs little from the sulphate of zinc. It contains a much larger proportion of zinc than of iron.

A triple sulphate of zinc and cobalt, as first noticed by Link, may be obtained by digesting zaffre in a solution of sulphate of zinc. On evaporation, large quadrilateral prisms are obtained, which effloresce on exposure to the air. Zinc is precipitated from acids by the soluble earths and the alkalies: the latter redissolve the precipitate, if they be added in excess. Zinc decomposes, or alters, the neutral sulphates in the dry way. When fused with sulphate of potash, it converts that salt into a sulphuret: the zinc at the same time being oxidised, and partly dissolved in the sulphuret. When pulverised zinc is added to fused nitre, or projected together with that salt into a red hot crucible, a very violent detonation takes place; inasmuch that it is necessary for the operator to be careful in using only small quantities, lest the burning matter should be thrown about. The zinc is oxidised, and part of the oxide combines with the alkali, with which it forms a compound soluble in water.

Zinc decomposes common salt, and also sal ammoniac, by combining with the muriatic acid. The filings of zinc likewise decompose alum, when boiled in a solution of that salt, probably by combining with its excess of acid.

Zinc may be combined with phosphorus, by projecting small pieces of phosphorus on the zinc melted in a crucible, the zinc being covered with a little resin, to prevent its oxidation. Phosphuret of zinc is white, with a shade of bluish-gray, has a metallic lustre, and is a little malleable. When zinc and phosphorus are exposed to heat in a retort, a red sublimate rises, and likewise a bluish sublimate, in needly crystals, with a metallic lustre. If zinc and phosphoric acid be heated together, with or without a little charcoal, needly crystals are sublimed, of a silvery white color. All these, according to Pelletier, are phosphuretted oxides of zinc. Most of the metallic combinations of zinc have been already treated of. It forms a brittle compound with antimony; and its effects on manganese, tungsten, and molybdena, have not yet been ascertained. An alloy of zinc and iron has been collected by Mr. Herapath in a zinc manufactory at Bristol. It lined the tube leading from the retort. It was hard and brittle, the fracture showing broad facets like zinc, but of a duller gray color, with surfaces more rough and granular. Its specific gravity was 7.172. It consisted of 92.6 zinc + 7.4 iron in 100.—Philosophical Magazine, lxii. 168.

ZINCK (Christian Frederick), an enamel painter, born at Dresden in 1684. He came to England in 1706, where he studied under Eoil, whom he excelled. He painted many of the royal family; and died in 1767.

ZINGHA, or ZINGHA BANDI, queen of Angola, in Africa, a woman of the most extraordinary character that ever any age or country produced. She poisoned her brother Nigola, in 1627; and kept up a war with the Portuguese, with various success, for more than twenty-eight years; and during the course of it displayed the most astonishing generalship. She died, in her eightieth year, in 1662.



**ZINNIA**, in botany, a genus of plants of the class syngenesia, order polygama superflua; and, in the natural system, arranged under the forty-ninth order, compositæ. The receptacle is paleaceous; the pappus consists of two erect awns, the calyx is ovato-cylindrical and imbricated; the rays consist of five persisting entire florets. There are two species; viz., 1. *Z. multiflora*, the many-flowered zinnia; and, 2. *Z. pauciflora*, the few-flowered zinnia; which are both foreign plants.

**ZINZENDORFF** (Nicholas Lewis), count, the noted founder of the German religious sect called Moravians, or *Hernhutters*; or, as they say, the restorer of that society. From his own narrative it appears that when he came of age in 1721 his thoughts were wholly bent on gathering together a little society of believers, among whom he might live, and who should entirely employ themselves in exercises of devotion under him. He accordingly purchased an estate at Bertholdsdorff in Upper Lusatia, where, being joined by some followers, he gave the curacy of the village to a man of his own complexion; and Bertholdsdorff soon became talked of for a new mode of piety. One Christian David, a carpenter, brought a few proselytes from Moravia: they began a new town about half a league from the village, where count Zinzendorff fixed his residence among them, and where great numbers of Moravians flocked and established themselves under his protection: so that in 1732 their number amounted to 600. An adjacent hill, called the Huthberg, gave occasion to these colonists to call their new settlement *Huth des Herrn*, and afterwards *Hernhuth*; which may be interpreted, 'The guard or protection of the Lord:' and from this the whole sect have taken their name. The count spared neither pains nor art to propagate his opinions; he went himself all over Europe, and at least twice to America; and sent his missionaries throughout the world. He died in 1760. Those who wish to know more of the Moravian tenets may consult Rimius's account of them translated in 1753. See *UNITAS FRATRUM*.

**ZINZIBER**, in botany. See *AMOMUM* and *GINGER*. *Ginger* is recommended by Dr. William Wright as very powerful in curing the gout.

**ZION**, or *STON*, in ancient geography, a very famous mountain, standing on the north side of Jerusalem (Psal. xlvii. 2), containing the upper city, built by king David, where stood the royal palace.—Josephus. A part of Zion, situated at its extremity, was called *Millo*, of, or in, the city of David.—2 Chron. xxxii. 5. Modern travellers, who have been upon the spot, say, that Zion is the whole of the mountain, on which Jerusalem stands at this day, though not to the extent in which it anciently stood on the same mountain, as appears from Psal. ix. 12, 15, lxxvii. 2, 3, Isa. lxii. 1. It is swelled into several eminences or tops; as *Moriah*, *Acra* *Bezetha*, and *Zion*, a particular eminence of Mount Zion, and *Zion Proper*, &c., encompassed on three sides, east, south, and west, with one continued very deep and steep valley; by means of which it was impregnable on these three sides, and always attacked and taken, according to Josephus, by the enemy on the north side, where mount Zion becomes level, and the vales of Gihon and Jehosaphat gradually descend. This deep and steep valley incontestably constitutes the compass of the old Jerusalem on those three sides, as plainly appears to any person who has been upon the spot. On that particular top of the mount called 'Zion stood

the fortress of the Jebusites; which, being afterwards taken by David, came to be called the City of David, where he had his royal residence, and kept his court. That part of the valley which lay to the east was called *Jehosaphat's*, having mount Olivet lying beyond it; that to the south *Gehinnon*; and that to the west *Gihon*, from cognominal mountains lying beyond them. At the west end of Gihon, without the city, stood *Golgotha* or *Calvary*. The pretended *Golgotha*, shown at this day within the walls, is the spurious brat of interested and fraudulent monks.—Korte.

**ZION**, another hill of Judea, the same with *Hermion*.

**ZIPH**, or *SIPH*, in ancient geography, a wilderness or desert in the tribe of Judah, where David was a fugitive; lying south-east of Hebron; so called from

*ZIPH*, or *SIPH*, two towns in this tribe; the one on the south towards Idumea, on the confines of Eleutheropolis (Jerome); the other eight miles east of Hebron, towards the Dead Sea, inclining south near mount Carmel. Here was a mountain, mentioned 1 Sam. xxiii. 24, said by Jerome to be rugged, dismal, and always overcast.

**ZIPHÆI**, *ZIPHENSES*, *ZIPHIM*, or *ZIPHITES*, the inhabitants of Ziph. 1 Sam. xxiii. 19.

**ZIRCON**, in mineralogy and lithology, a stone containing a new earth; called also *jargon*.

**ZIRCONIA** was first discovered in the jargon of Ceylon by Klaproth, in 1789, and it has since been found in the jacinth. To obtain it, the stone should be calcined and thrown into cold water, to render it friable, and then powdered in an agate mortar. Mix the powder with nine parts of pure potash, and project the mixture by spoonfuls into a red-hot crucible, taking care that each portion is fused before another is added. Keep the whole in fusion, with an increased heat, for an hour and a half. When cold, break the crucible, separate its contents, powder and boil in water, to dissolve the alkali. Wash the insoluble part; dissolve in muriatic acid; heat the solution, that the silex may fall down; and precipitate the zircon by caustic fixed alkali. Or the zircon may be precipitated by carbonate of soda, and the carbonic acid expelled by heat.

1. *New process for preparing pure zirconia*.—Powder the zircons very fine, mix them with two parts of pure potash, and heat them red-hot in a silver crucible for an hour. Treat the substance obtained with distilled water, pour it on a filter, and wash the insoluble part well; it will be a compound of zirconia, silex, potash, and oxide of iron. Dissolve it in muriatic acid, and evaporate to dryness, to separate the silex. Redissolve the muriates of zirconia and iron in water; and, to separate the zirconia which adheres to the silex, wash it with weak muriatic acid, and add this to the solution. Filter the fluid, and precipitate the zirconia and iron by pure ammonia; wash the precipitates well, and then treat the hydrates with oxalic acid, boiling them well together, that the acid may act on the iron retaining it in solution, whilst an insoluble oxalate of zirconia is formed. It is then to be filtered, and the oxalate washed, until no iron can be detected in the water that passes. The earthy oxalate is, when dry, of an opaline color. After being well washed, it is to be decomposed by heat in a platinum crucible. Thus obtained, the zirconia is perfectly pure, but is not affected by acids. It must be reacted on by potash as before, and then



washed until the alkali is removed. Afterwards dissolve it in muriatic acid, and precipitate by ammonia. The hydrate thrown down, when well washed, is perfectly pure, and easily soluble in acids.

Zircon is a fine white powder, without taste or smell, but somewhat harsh to the touch. It is insoluble in water; yet, if slowly dried, it coalesces into a semitransparent yellowish mass, like gum-arabic, which retains one-third its weight of water. It unites with all the acids. It is insoluble in pure alkalies; but the alkaline carbonates dissolve it. Heated with the blow-pipe it does not melt, but emits a yellowish phosphoric light. Heated in a crucible of charcoal, bedded in charcoal powder, placed in a stone crucible, and exposed to a good forge fire for some hours, it undergoes a pasty fusion, which unites its particles into a gray opaque mass, not only vitreous, but more resembling porcelain. In this state it is sufficiently hard to strike fire with steel, and scratch glass; and is of the specific gravity of 4.3. There is the same evidence for believing that zirconia is a compound of a metal and oxygen, as that afforded by the action of potassium on the other earths. The alkaline metal, when brought into contact with zirconia ignited to whiteness, is, for the most part, converted into potash; and dark particles, which, when examined by a magnifying-glass, appear metallic in some parts, of a chocolate-brown in others, are found diffused through the potash and the decompounded earth. According to Sir H. Davy 4.66 is the prime equivalent of zirconium on the oxygen scale, and 5.66 that of zirconia.

Zirconium has been recently obtained by Berzelius by a method exactly similar to that for silicium. See SILICIUM. Zirconium is as black as carbon, does not oxidise in water or in muriatic acid, but nitro-muriatic and fluoric acids dissolve it; the last with the disengagement of hydrogen. At a temperature but slightly elevated it burns with great intensity. It combines with sulphur. Its sulphuret is of a chestnut-brown color like silicium, and insoluble in muriatic acid or the alkalies. It burns with brilliancy, producing sulphureous acid gas and zirconia.—Ann. de Chimie et de Phys. xxvi. 41.

ZISCA (John), the famous general of the forces of the Hussites, in the fifteenth century, was a gentleman educated at the court of Bohemia, in the reign of Wenceslaus. He entered very young into the army, and, after distinguishing himself on several occasions, lost an eye in a battle, whence he was called Zisca, or One-eyed. At length the Reformation, begun by John Huss, spreading through almost all Bohemia, Zisca placed himself at the head of the Hussites, and had soon under his command a body of 40,000 men. With this army he gained several victories over those of the Romish religion, who carried on a kind of crusade against them, and built a town in an advantageous situation, to which he gave the name of Tabor; whence the Hussites were afterwards called Taborites. Zisca lost his other eye by an arrow at the siege of the city of Rubi; but this did not prevent his continuing the war, his fighting battles, and gaining several great victories, among which was that of Ausig on the Elbe, in which 9000 of the enemy were left dead on the field. The emperor Sigismund, alarmed at his progress, caused very advantageous proposals to be offered to him;

which he readily accepted, and set out to meet Sigismund, but died on the road. He ordered that his body should be left a prey to the birds and wild beasts; and that a drum should be made of his skin, being persuaded that the enemy would fly as soon as they heard the sound. It is added that the Hussites executed his will; and that the news of this order made such an impression on the disturbed imaginations of the German Papists, that in many battles they actually fled at the beat of the drum with the utmost precipitation, leaving their baggage and artillery behind them.

ZIZANIA, in botany, a genus of plants of the class monocæcia, order hexandria, and, in the natural system, arranged under the fourth order, graminæ. There is no male calyx; the corolla is a bivalved, beardless glume, intermixed with the female flowers; there is no female calyx, the corolla is a univalved, cuculated, and aristated glume; the style is bipartite, and there is one seed covered with the plaited corolla. There are three species, viz. 1. *Z. aquatica*, the water zizania. 2. *Z. palustris*, the fenny zizania; and 3. *Z. terrestris*, the land zizania. All the three are foreign plants.

ZIZIPHORA, in botany, Syrian field basil, a genus of plants of the class diandria, and in the order of monogynia; ranking, according to the natural method, in the forty-second order, verticillate. The characters are these:—The flower hath a long, rough, cylindrical empalement, which is slightly cut into five parts at the brim; and the flower is of the labiated kind, having a long cylindrical tube; the upper lip is oval, reflexed, and entire; and the under lip, or beard, is divided into three equal segments; it has two spreading stamina, terminated by oblong summits, and a quadrifid germen, supporting a bristly style, crowned by a sharp-pointed inflexed stigma; the germen turns to four oblong seeds, which ripen in the empalement. There are three species.

ZODIAC, *n. s.* Fr. *zodiaque*; Gr. *ζωδιακος*, of *ζωη*, life. The track of the sun through the twelve signs; a great circle of the sphere, containing the twelve signs; or living creatures painted on the zodiac.

The golden sun salutes the morn,  
And, having gilt the ocean with his beams,  
Gallops the *zodiac* in his glistering coach. *Shakspeare.*

Years he numbered scarce thirteen,

When fates turned cruel:

Yet three filled *zodiacs* had he been

The stage's jewel.

*Ben Jonson.*

By his side,

As in a glistering *zodiac*, hung the sword,  
Satan's dire dread; and in his hand the spear.

*Milton.*

It exceeds even their absurdity to suppose the *zodiac* and planets to be efficient of, and antecedent to, themselves, or to exert any influences before they were in being.

*Bentley.*

Here in a shrine, that cast a dazzling light,  
Sat fixed in thought the mighty Stagyrite;  
His sacred head a radiant *zodiac* crowned,  
And various animals his sides surround.

*Pope.*

ZODIAC. See ASTRONOMY, Index; and ZODIAC.

ZODIACAL (from *zodiac*). Of or belonging to, from, or under the zodiac.

ZODIACAL LIGHT. See ASTRONOMY, Index.

ZODIACK, or ZODIAC, in astronomy, a broad circle, whose middle is the ecliptic, and its extremes two circles parallel thereto, at such a distance



from it as to bound or comprehend the excursions of the sun and planets. See ASTRONOMY, Index. It is a curious enough fact that the solar division of the Indian zodiac is the same in substance with that of the Greeks, and yet that it has not been borrowed either from the Greeks or the Arabians. The identity, or at least striking similarity, of the division, is universally known; and M. Montucla has endeavoured to prove that the Brahmins received it from the Arabs. His opinion, we believe, has been very generally admitted; but, in the second volume of the Asiatic Researches, the accomplished president Sir William Jones has proved unanswerably that neither of those nations borrowed that division from the other; that it has been known among the Hindoos from time immemorial; and that it was probably invented by the first progenitors of that race, whom he considers as the most ancient of mankind, before their dispersion. The question is not of importance sufficiently general, straitened as we are by the limits prescribed us, for our entering into the dispute; but we think it our duty to mention it, that our astronomical readers, if they think it worth their while, may have recourse to the original writers for further information.

ZOE, the fourth wife of the emperor Leo VI., and mother of Constantine VIII., during whose minority she governed the empire with great propriety; quelled the revolt of Constantine Ducas; obliged the Bulgarians to return to their own country; and made peace with the Saracens. Her ungrateful son Constantine, when he succeeded, banished this excellent empress, and she died in exile.

Zor, the daughter of Constantine X., and wife of Romanus III., surnamed Argyrus, whom she murdered in 1034 to marry Michael IV., after whose death in 1041 she married Constantine XI., surnamed Monomachus. She died in 1050.

ZOEGA (George), was born at Kiel in Danish Holstein in the year 1751, and became a distinguished philologist. He went to Italy in 1777, and in 1779 came to reside at Rome, where he remained during the space of twenty-nine years. In 1787 he published a Catalogue Raisonné of the imperial medals struck at Alexandria, which did great honor to his industry and talents, and laid the foundation of his literary fame. The pope, Pius VI., about that time had just embellished the city with several Egyptian monuments, which had been concealed in the earth for upwards of twelve centuries. He applied to Zoega to write a dissertation on the obelisks. To this interesting enquiry he directed his attention with his usual zeal and industry. In 1797 his book *de Origine et Usu Obeliscorum* was ready for the press, but was not published when, in 1799, he was subjected to the greatest privations by the war which overthrew the papal government, and established an ephemeral republic. Yet, under the pressure of poverty, and subject to frequent attacks of a disease in the chest, he continued his researches into antiquity. It was then that he prepared his dissertation concerning Lycurgus and the Menades, which was soon after read in the Roman Institute, of which he became a member. In 1801 the situation of Zoega was so wretched that he determined to return to Holstein. From this he was happily prevented by the good offices of M. de Schubart, envoy from Denmark to Italy. The king of Den-

mark, through his influence, was pleased to appoint Zoega librarian and professor in the university of Kiel, with the usual emoluments, and with special permission to continue his residence at Rome. Zoega was well acquainted with the ancient languages, and more than ordinarily skilled in the principal modern tongues. He wrote in Latin with the utmost facility, and in Italian with all the graces of a native Tuscan: he was also a perfect master of French, English, and German. For many years he was afflicted with a pulmonary complaint, aggravated by his studious life. He died at the age of fifty-eight, of a nervo-bilious fever, to the great loss of literature and regret of learned men. His manners were amiable, and he was extremely communicative of his knowledge in conversation. He was the instructor of his own children. His wife, to whom he was tenderly attached, died before him; which probably contributed to shorten his own life. He was a member of the Italian academy, as well as of the academies of Copenhagen, Goettingen, Berlin, Florence, Sienna, Rome, &c.; and he had, just before his death, been appointed a knight of the order of Danebrog.

ZOEGEA, in botany, a genus of plants of the class syngenesia, and order polygamia frutracea. The receptacle is bristly; the pappus setaceous; the corollulæ of the radius ligulated; the calyx imbricated. There are two species, viz. 1. *Z. Capensis*, the Cape zoega; a native of the Cape of Good Hope: and 2. *Z. leptaura*, another foreign species.

ZOILUS, a rhetorician, sophist, and grammarian of Amphipolis in Thrace, who flourished about A. A. C. 260 or 270. He criticised the *Iliad* of Homer and the works of Isocrates with such severity, that he was called *Homeromastix*, or the Chastiser of Homer, and the Dog; and his name has been ever since applied to all snarling critics. He presented his criticisms to Ptolemy Philadelphus, who rejected them with contempt, and some say put him to death; but this seems not agreeable to Ptolemy's liberal character.

ZOISITE, a sub-species of prismatoidal augite, which is divided into two kinds, the common and friable.

1. *Common zoisite*.—Color yellowish-gray. Massive, in granular and prismatic concretions, and crystallised in very oblique four-sided prisms, in which the obtuse lateral edges are often rounded, so that the crystals have a reed-like form. Shining, or glistening and resinous pearly. Cleavage double. Fracture small grained uneven. Feebly translucent. As hard as epidote. Very easily frangible. Specific gravity 3.3. It is affected by the blowpipe, as epidote. Its constituents are, silica 43, alumina 29, lime 21, oxide of iron 3.—Klaproth. At the Saulp, in Carinthia, it is found imbedded in a bed of quartz, along with cyanite, garnet, and augite; or it takes the place of felspar in a granular rock, composed of quartz and mica. It is found in Glen-Elg in Inverness-shire, and in Shetland.

2. *Friable zoisite*.—Color reddish-white, which is spotted with pale peach-blossom red. Massive, and in very fine loosely aggregated granular concretions. Feebly glimmering. Fracture intermediate between earthy and splintery. Translucent on the edges. Semi-hard. Brittle. Specific gravity 3.3. Its constituents are, silica 44, alumina 32, lime 20, oxide of iron 2.5.—Klaproth. It occurs imbedded in green talc, at Radelgraben, in Carinthia.



**ZOLLIKOFER** (George Joachim), a learned Swiss Protestant divine, born in 1730, and educated at Bremen and Utrecht. After preaching in Pays de Vaud, he settled at Monstein, in the Grisons country; next at Isenburg; and in 1758 at Leipsic. He wrote *A Book of Devotions*, and 2 vols. of *Sermons*; both translated into English. He died in 1788.

**ZONARAS** (John), a learned Greek historian, who was employed in state affairs at the court of Constantinople. He wrote *A Chronicle or Annals from the Creation to A. D. 1118*, in Greek; which were printed at Paris in 2 vols. folio, in 1686. He turned monk in his old days, and wrote *Commentaries on the Apostolic Canons*.

**ZONCA** (Victor), an eminent mathematician of Italy in the seventeenth century, who published a collection of curious inventions in mechanics, entitled *Nuova Teatro di Machini et Edificii*; Padua, 1621, folio.

**ZONE**, *n. s.* Gr. ζώνη; Lat. *zona*. A girdle; a division of the earth.

True love is still the same: the torrid zones,

And those more frigid ones,

It must not know.

*Suckling.*

Scarce the sun

Hath finished half his journey, and scarce begins

His other half in the great zone of heaven. *Milton.*

And as five zones the etherial regions bind,

Five correspondent are to earth assigned:

The sun, with rays directly darting down,

Fires all beneath, and fries the middle zone. *Dryden.*

An embroidered zone surrounds her waist.

*Id.*

Thy statue, Venus, though by Phidias' hands

Designed immortal, yet no longer stands;

The magick of thy shining zone is past,

But Salisbury's garter shall for ever last. *Granville.*

**ZONE**, in geography and astronomy, is a division of the terraqueous globe with respect to the different degrees of heat found in the different parts thereof. See **GEOGRAPHY**.

**ZONE, TORRID.** See **ASTRONOMY**, and **TORRID**. Its breadth is  $46^{\circ} 58'$ . The equator, running through the middle of it, divides it into two equal parts, each containing  $23^{\circ} 29'$ . The ancients imagined the torrid zone uninhabitable.

**ZONES, FRIGID**, the zones within the polar circles, where frost and snow are perpetual. See **ASTRONOMY**, and **GEOGRAPHY**.

**ZONES, TEMPERATE.** See the references above. The breadth of each is  $43^{\circ} 2'$ . The frigid zones are segments of the surface of the earth, terminated, one by the antarctic, and the other by the arctic circle. The breadth of each is  $46^{\circ} 58'$ .

**ZONES or BELTS OF JUPITER.** See **ASTRONOMY**.

**ZOOGONIA, ZOOGONY** (from Gr. ζωο, alive, and γονη, offspring), a breeding or bringing forth of perfect or living creatures.

**ZOOG'RAPHER**, *n. s.* } Gr. ζωη and γραφω.

**ZOOG'RAPHY.** }

One who describes the nature, properties, and forms of animals: zoography is the science of the zoographer.

One kind of locust stands not prone, or a little inclining upward; but in a large erectness, elevating the two fore legs, and sustaining itself in the middle of the other four, by zoographers called the prophet and praying locust. *Browne.*

If we contemplate the end, its principal final cause being the glory of its Maker, this leads us into divinity; and for its subordinate, as it is designed for alimental sustenance to living creatures, and medicinal uses to man, we are thereby conducted into zoography.

*Granville.*

## ZOOLOGY.

**ZOOLOGY** The term zoologia is compounded of ζωον, a living creature, and λογος, illative reasoning. The former is ultimately derived from ζεω, ferveo, under which category all the vital manifestations fall, since a kindly fermentation is universally produced by the union of the principle of caloric with the appropriated fluids in the processes of animal life. The latter is from λεγω, to collect or gather, and strictly implies the ingathering of the several elements of knowledge.

According to the full import of the term, therefore, zoology is that science which contemplates the attributes and the systematic arrangement of living creatures. As our limits are prescribed, and as many of the subjects pertaining to this department of knowledge have been already touched upon in the preceding volumes of this work, we shall here make it our main scope and object to exhibit the method, the rationale, and the proprieties of a general classification of living creatures, commencing with man, the most complicated in his organisation and vital functions; and in a descending scale of animal endowments pursue the series till it terminates in the eudora, a creature which from the extreme simplicity of its structure is nourished by absorption alone; and from time to time season the dryness of forms with some viridaria or green patches of natural history which have either fallen

under the writer's own observation, or have been fresh drawn from recent sources.

In framing the groundwork of a system, it is obvious that a considerable stock of materials ought to be at the devotion of the founder, and it is no less apparent that the stability and amplitude of the superstructure will be proportioned to the quantity and goodness of the subsequent additions; it will not be amiss, therefore, in the first place, to discuss the means of obtaining this knowledge; and, in the second, the method of applying it when obtained. This might not unfitly be called the logic of zoology, or the art of collecting and assorting that peculiar class of ideas and notions which pertain to natural history. When we contemplate any living creature of the higher orders, with the view of becoming better acquainted with its form and structure, we find that certain portions of it may be divided into homogeneous parts, as muscle into muscles and nerves into nerves, whilst others divide themselves into heterogeneous parts, as the hand into fingers and the feet into toes. The former, or homogeneous sections, belong to the study of anatomy, its office being to consider the texture as well as the form of the solid parts of the animal frame. The latter, or heterogeneous sections, being the development or unfolding of those parts into external configurations, enter more immediately into



the composition of that sum of particulars which is called zoology. Hence it appears that it is the primary division of our duty in the prosecution of this branch of science to consider the form and shape of a corresponding portion of one animal with reference to that of another, and to describe their differences in such clear and specific terms as to leave no doubt in the mind of the reader about the justness of his apprehension. But this is easier in theory than in the execution; for, though the difference in point of lineament between the head of a horse and that of a bear be manifest at first sight, yet, from the number and complexity of those lines which define their respective forms, it is no easy matter to suggest the principal mark for discrimination, if shape alone be the object of our enquiry. The essential properties of a straight line and a curved one are presently acknowledged by the eye; yet, since there may be curvatures of an infinite number of diameters, language is not adequate to express them; and, though we gladly content ourselves with approximations to accuracy, yet, since the configurations of animals are chiefly composed of these bending lines, we seldom attempt to seek for a leading characteristic from that quarter. To obviate this uncertainty, we may take a more confined view, and, by a sort of analogy, compare the relative breadths and lengths of corresponding portions, and the similar distances of prominent organs, as, for example, the size of ears contrasted with that of the head; the distance of the nostrils from the canthus of the eye, or from the meatus auditorius of the ear: thus several ways of measuring the head might be devised, which would very much assist the imagination and help comparative terms to a definitiveness in which they would be otherwise deficient. When any organ happens to admit of an uncommon degree of development, its very excess becomes a notable mark for distinction, as, for instance, the tragus of the ear among the bats, which, by expansion, assumes the form of a secondary ear, and is by the French called oreillon, or a little ear; and we, following the analogy of eyelet, have for the sake of brevity translated it ear-let: the prolonged snout of the nasua, or *coati mundi*; the voluntary power of protruding the muzzle in the ursine sloth; or the disproportioned length of the hind legs in the kangaroo. When a part appears under the form of a supplement, it never fails to arrest the attention of the most cursory observer, and when other marks are wanting, and its use in the animal economy cannot be discerned, we may fairly consider it as a signature which nature herself has set upon the creature to assist us in distinguishing it from the rest of its kindred. By way of reference we might allude to the nasal appendage so conspicuous in some of the bats, which has not only become the diagnostic of genus, but by the playful variety of its shape and foldings has split the group into several genera. But, without dwelling upon particularities of less importance, we might for the sake of exemplification refer to the membranous expansion of integuments of the fore legs, and the elongation of the phalangial bones in the last mentioned animals, which, ministered to by large pectoral muscles, can, by the reaction of an elastic medium, support them in a lofty flight. In the proximate family of the galeopithecii, or flying cats, the attenuated and spreading skin of the sides or flanks, without any

lengthening of the phalangial bones, assists the possessors in leaping, and us in dividing them from their affinities. The legs and feet in some animals afford us very important means of distinction; that point which renders more prominent the angular bending in the hind leg of the horse and the lion is elevated to a mediate distance from the ground, and, by affording a mechanical advantage for the insertion of the muscles, aids the animal in bounding; but in the bear we find the same joint resting upon the plane of position, and the creature thereby enabled to maintain an erect attitude, in which case the animal is said to be plantigrade, implying that, instead of having the heel-bone so situated that the leg may act about it like a spring unbending about a pivot, it has the same bone brought so low as to rest upon the ground, and recompenses the diminution of fleetness with which the tyger springs upon his prey, and the hind flees from danger, by allowing him a certain adaptation of posture that enables him to climb trees and gather his favorite food from their branches. In order to make room for the length of the metatarsal bones in the leg of a horse, we find the thigh bone, or os femoris, shorter, and in a manner included within the body. Instead of spreading itself into toes we sometimes find the foot, by the preponderating growth of horny substance, converted into a hoof, in which case later naturalists have found it convenient to call the animal solidungulous, importing that the nails have coalesced into one solid substance. Here the reader will be beforehand with me in suggesting the horse as an example and type for the rest. In a numerous order of animals we meet with a cleft in this hoof, and the two parts thus left asunder so far separated as to assist the animal in ascending by clasping the inequalities of the soil. This attribute is collateral with another, namely, that of chewing the cud, which circumstance in nomenclature has, because it depends upon a noted number and structure of the stomachs, been allowed to take the lead of the former. It is familiar with most readers of the Bible that these were the signs by which a clean beast might be known from an unclean one; and, to lay the greatest possible emphasis upon the completeness of this division, the original has employed five verbs and concrete verbal nouns to express it. This order, as comprising all those useful animals which yield us both food and clothing, was made by Linné to pass under the extended appellation which we have some reason to believe was once appropriated to sheep alone. But Cuvier, willing to have a name which should by itself be significant of the character, has made choice of the classical and well understood term *ruminantia*, or ruminating animals, including all those tame beasts the chosen pabulum of which contains so small a proportion of nutriment fit for assimilation, that, were they obliged to perform the office of cropping and chewing at the same time, too much space would be subducted from the length allotted to repose. Among the quadrumana, or simiæ, of our arrangement, we, in the parts under consideration, recognise the similitude of our own hands; in the first and second families, especially, we observe a similar flatness in the nails and the tapering length of the fingers, but what is of far greater dignity is the meeting applicability of the thumb, which serves not only in grasping objects, which many other animals are accustomed to do with great facility



but enables the fingers to perform all that complexity of offices and manœuvres which we very expressively call handling. In the beaver the integuments of the toes are attenuated into webs, in order that they may fulfil the same purpose which the palm of an oar does in rowing, namely, that of propulsion by the reaction of the stricken medium. In that paradoxical animal, lately brought from New Holland, we meet with the same sort of webs extended beyond the tips of the nails in the fore-feet, but somewhat within their range in the hind ones.

The aphorism of Tully, that every system of instruction or doctrinal discussion ought to set out with a definition, is as pertinent to the nature and use of the term genus, in marshalling zoological facts, as it was to that of the word officium in a discourse on the practical duties. This word genus, formed by a dialectical variation from *γενος*, is derived from the obsolete verb *γενω*, which has expanded itself into numerous posterity, *γενωμας*, *γγνωμας*, *γινωμας*, *γεννω*, &c., and expresses the separation of the young from the matrix of its mother. In the works of Aristotle, the father of philosophic method, it is tacitly presumed by the application of *γενος* that certain characteristics of form are indispensably connected with the reproduction of a living creature. But, if a reader does but cast his eye over the pages of books written since the time of Linné, he will presently perceive that, even in works in which there is a great ostentation of accuracy, authors are by no means agreed about what constitutes a generic character; hence a table of synonyms, especially in ornithology, sometimes presents a series of monstrous discordances, and some might thence be tempted to think that such apparent deformities could be spared from an arrangement; but experience will teach them that these synonyms are an abbreviated form of an indefinite description, hinting at certain similitudes, conceived by those who imposed the names in question, which will aid the practical enquirer in ascertaining the identity with the subject of description, and lend him an indirect assistance in extricating the essential difference. To this observation we have been led by experience, having in our researches often had our doubts more effectually cancelled by the inspection of a few synonyms than by reading over a description of the ordinary length.

Notwithstanding the diversity of judgments about the origin of generic distinction, we, from a certain concurrence of opinion exhibited by several late writers, and from the predominant mode of thinking observable in monographs of recently established genera, may be allowed to frame the following logical definition of a genus:—

The idea of a genus consists in a certain peculiar and prominent variation of form, provided a notion of that variation can be conveyed to the mind of another in clear and definitive terms, so that if the object and the description be submitted to a person of competent skill in the application of technical words, be shall not fail to acknowledge their reciprocal aptitude with a ready and unwavering confidence. This view of generic distinction is consonant with that philosophy which, being imbued with the idea of final causes, expects that every well-marked variety of conformation answers some determinate purpose in the economy of the animal. Species will have, therefore, little more to account for than the color of the hair or the grain of a fea-

ther, which will, where the differences of kindred forms are numerous, afford a mighty relief to the elaboration of specific description.

Whenever the changes of form lose themselves by easy gradations in one another, as in the human species, this idea of genus is annihilated. The same observation is true with respect to our notion of species which is conversant about colors, when we apply it to the varieties of the human race and some domesticated animals. If we select indeed two extreme cases for the subjects of our comparison, we shall perceive an obvious difference, which may be embodied in the most explicit terms; but, if we attempt to draw a line of demarcation, we shall find that every addition we make to our knowledge will tend to alter the position of this limit, till, by repeated shifting, the authentic nature of generic and specific differences be completely subverted. Though every one, for these reasons, has a right to canvass with the greatest freedom all pre-established boundaries in the common field of natural knowledge, yet even the most imperfect of such boundaries afford certain comfortable resting-places for the mind, and furnish excellent touchstones for trying the purity and precision of our conceptions; they are therefore allowed by a kind of courtesy to retain their rank till others of better title can be substituted in their room. There is something harsh and uncharitable in saying that, in consideration of numerous faults, 'I reject the system' of any one who has employed himself sedulously in the business of distribution, when the author of the performance himself, from a practical feeling of its deficiencies, only hoped that it would prepare the way, and furnish materials towards a more ample and a more orderly disposition. The following is the general plan of the present treatise:—

Part I. ANIMALIA VERTEBRATA, or the Vertebral Animals, divided into Class I. MAMMALIA. II. AVES. III. REPTILIA. IV. PISCES.

Part II. ANIMALIA INVERTEBRATA, or the Animals without Vertebrae, divided into Class I. CEPHALOPODA. II. PETROPODA. III. ACEPHALA: IV. BRACHIOPODA. V. CIRRHOPODA.

Part III. ANIMALIA ARTICULATA, or Animals composed of jointed rings. Class I. ANNELIDA. II. CRUSTACEA. III. ARACHNIDA. IV. INSECTA.

Part IV. ZOOPHYTA, zoophytes. Class I. ECHINODERMATA. II. ENTOMAZOON or INTESTINALIA. III. ACALOPHYTA. IV. POLYPT.

With their respective Orders, Families, Genera, and Species.

## PART I.

### ANIMALIA VERTEBRATA.

#### CLASS I.—MAMMALIA.

##### ORDER I.—BIMANUS.

Gen. *Homo*.—*Vultibus erectis particeps rationis*. Man. It is our design in the present article to contemplate man only under the aspect of a living creature, and to refer the reader to the article METAPHYSICS for the study of his intellectual character; for we protest against the practice of some writers who attempt to despatch the consideration of perception, judgment, memory, and the other leading faculties of the mind, in the compass of a few paragraphs, as if in point of physiology the relation of thought to the brain were discoverable in the same way in which we become acquainted



with the connexion of the bile with the liver. A superficial knowledge of the internal economy of a living machine assures us that the proper quantity and nature of that secretion is dependent upon the healthy state of that organ; and a short acquaintance with pathology demonstrates to us that the wonted measure of intercourse which the mind holds with sensible objects is also dependent upon the healthy state of the brain. But will any one whose intellect has been some time occupied about the differences, as well as the affinities of phenomena, presume to say the bond of union is respectively the same? Let us see what would become of such a conclusion were we to apply a touchstone borrowed from that pure science which, dropping the specific quantity, is only conversant about the ratios of magnitude. This we might do by converting the position into the form of analogy, thus:—the bile bears the same ratio to the liver that thought does to the brain; videlicet, bile : liver :: thought : brain. But would not a mathematician reclaim against such proportion, and declare that it was impossible, because the consequents are not homogeneous, and that if we would discern what relationship there is between thought and the brain, we must assume another mean. The two first and the last terms are the objects of the external senses; but the third is not, which renders it absurd to think of submitting thought to that general common measure of all material aggregates, extension. It has been asked, Cannot God add thinking to matter? which seems to be a question of as much plausibility as that, Cannot God transmute silver into gold? Yes; for it would only be necessary to increase the specific gravity a little, superadd yellowness to whiteness, &c., and a shilling would become of more value than a sovereign; and, the nominal essence of silver being by this change destroyed, we should rightly give the altered substance another name. It was long ago taught that the essences of things consist in the assemblages of known properties, which, in order that the notions within the mind may correspond to their archetypes without, we, in ratiocination, affix unity by tying together with appropriate names, and in proportion to our skill and industry we shall find occasion to augment the resources of our language, that we may have new denominations for newly discovered assemblages, as well as ascertain and settle by definition the precise boundaries of fore-known parcels. And herein consists the praise of a keen and vigorous judgment, nicely to discriminate the differences of things, and to discover how far common properties, running through a multitude of kinds, may blend them into classes, and what secondary attributes of a more limited though definite range may separate them into orders. In philosophy, then, it will follow as a deduction that dogmatism is precluded, and that a freedom of thinking is of all things most necessary to the clear and full interpretation of natural truth. No materialist ever saw a piece of matter divested of its properties, nor will ever have an opportunity of subjecting it to his senses, any more than an immaterialist will have an opportunity of considering the mind apart from its office of thinking. But it would be necessary for one to have at least a glimpse of that *τὸ πρῶτον ὑποκείμενον, δυναμένον ἀπασας δεχέσθαι τὰς μορφάς, ἐν στερήσει μὲν εἶναι ὁρατῶν, or that primary subject or matter, which having a capacity to receive forms, yet exists in a*

privation of them all, before he could pretend to pronounce any thing concerning its ultimate nature, or take upon him to say what was material and what was immaterial, and to emulate the knight-errant intellection of Ralph,

By help of these, as he professed,  
He had first matter seen undressed;  
He took her naked all alone  
Before one rag of form was on.

But that this will remain an *ὄνειρος*, a dream, that may mislead us, and not a *ὕπαρ*, a vision, intended to put us in a state of preparation for what will be shortly realised, Ammonius teaches us by saying *ὅτι ἢ ἡμποτε ενεργεῖα ἢ ὅλη ἀσώματος, ἢ σῶμα ἀποιον, ἀλλὰ τὴν ἐντακτον των οὐτων γενεσιν θεωρουντες φαμεν, τὴν ἐπινοίαν διαφροντες ταυτα, τα τὴ φύσει ἀχωριστα*, not that there ever was in operation or reality either matter without body or extension, or body without quality; but we say so when we contemplate the well ordered generation of things, dividing in conception those things which are by nature inseparable. If, instead of assuming the air and tone of masters, the philosophers of the present age had humbled themselves to become disciples, and had set themselves down to a diligent study of ancient learning, they might have drawn thence so much of the first philosophy as to have been able to discern that the greater part of the modern reasoning about the nature of the human mind are but portions of one and the same system, and that, with a little divesting of peculiarities, they might, by help of some common principles, be fairly connected into a firm and compact whole. We lay it down as an axiom that there are two primary classes of phenomena, one falling under the arrangement of mind, the other of matter; and since, from the very constitution of the understanding, we can never be brought to believe that attributes can exist without some substratum for them to rest upon, we, in perfect accordance with logical method, reason that there are also two hypostases; the former as the basis of those appearances which communicate with our consciousness through the medium of the senses; the latter as the foundation of that dividing and combining energy which the imagination exerts when it disjoins things which nature cannot separate, and frames a notion of an order of existences still more perfect and complete than that which we are at present indulged withal. In the study of man it is the business of the zoologist to consider the external variations of his form and complexion, the sagacity he exhibits in procuring the commodities of life and avoiding the inconveniences to which it is subject, and to ascertain how far climate, population, and the scanty or redundant supply of his wants may have operated in the development of his mental faculties; for it is as certain as reason and experience can make any thing that, since all the materials upon which the intellect exercises its energies are derived from without through the medium of the outward senses, the amplitude of the mind must entirely depend upon the sphere of surrounding objects, which will be modified in an indefinite and multifarious manner, by the clemency or inclemency of the sky, the extent and fertility of the soil, as well as nature and diversity of its productions, besides a countless variety of incidental circumstances that might or might not happen; all of which would conspire to mould the form of 'plausible manners,' and minister



occasion to the operative intellect. A philosopher, dressed in all the acquired habits of thinking and acting, cannot so far divest himself of them as to have a full perception and intuition of that powerful influence which the means of living exercises over the mental capabilities, till he comes to converse with the lower orders of human life, and thence becomes acquainted with the rough-hewn elements of thinking. We cannot conceive any thing more flat, dull, and unprofitable, than those speculations in which the bodyings forth of the imagination are neither derived from nor even applied to the touchstone of real life, nor any thing more idle and inapplicable than the generality of narratives, the travellers being too often destitute of a competent stock of language and acuteness to give a faithful portraiture of their own sensations, and therefore incompetent to give the reader a just anticipation of that impression which the country and the inhabitants would make upon him were he to be suddenly carried thither. We think he ought to do this before he takes upon him to give a description of what is going on in some remote corner of the earth, and to be so far able to hold the mirror up to nature that some of the shades and colorings, as well as an outline of her image, may be reflected to us, that we at a distance may be allowed to contemplate the mien and expression of her countenance, and to have such a fair perception of her true lineaments as not to fail to recognise them when the objects are actually brought before us. These observations are not the fruit of our own imaginings, but have often been verified and repeated when the reputed picture and the objects were in sight, and corroborated by hearing those who had read the works of travellers complain of their disappointment in finding such a wide discrepancy between the writer's account and the real state of things. With such a manifest deficiency in data we ought not to be surprised to find that several great men, who have exercised their wits in attempting to account for the origin and production of those varieties into which they were obliged to divide the human race, have been exceedingly puzzled in searching after an adequate cause for the amazing differences of color and physiognomy which we meet with in tracing the surface of the habitable parts of the earth. Climate has often been assigned as the occasion of a variation in complexion; and that it has its measure of influence no one will doubt who has seen the little damsels in the island of Teneriffe of snowy whiteness, while the young matrons who accompanied them were brunettes. And the reason why atmospheric predominance has sometimes fallen into disrepute, as a cause, has been that a necessary correction was forgotten to be made, the degree of exposure which the inhabitant is necessitated to undergo, whether his wants will compel him to endure the midday sun, or allow him to avoid its fierceness by retiring to a shade, or, what is more important, whether a well built cottage defends him from the damps of the night, and the chilling inclemency of a rainy season. There appears to be no reason for us to insist upon the decided influence which these circumstances exert over the human countenance, since the experience of most observers will furnish them with examples of comely children who, from the fostered or tolerated predominance of unruly passions, have, in the course of a few years, lost all their becoming looks, and cannot be recognised

by any remembrance of their season of beauty; and, on the contrary, with examples of others who, in the dawn of life, did not recommend themselves by any fairness in the lineaments of the face, yet, because they had the good fortune to be transplanted into a seminary of a more kindly soil and nurture, its form and expression has put on so much grace and elegance that the recollections of its former unsightliness are quite forgotten. To bring exemplification still nearer to us, let any one contemplate his countenance in a glass when his mind has been jaded with incessant cares, and compare its appearance then with that which it exhibits when the heart is full of peace and mirthful exultation, and it will be obvious that if one of these principles be allowed to have the pre-eminence from a very early date, prominent differences will be the result. Idleness has been looked upon as the source of an infinite complication of vices, and seems to have drawn down the vengeance of the deluge upon the old world; but it has lent us in return the ingenious speculations of philosophy, the opportunity of devising the curious occupations of the fine arts, and the means of cultivating and preserving the seemliness of the human form and complexion. The grain and texture of the skin among the natives of the South Sea Islands, between those who are from early life exposed to the inclemencies of heat and cold, and those who are defended from the changes of atmosphere and the cravings of want, is very remarkable, not to mention the superiority of size and stature which the chiefs possess over the common people, the genuine result of an artificial attention to the cultivating of this particular kind of excellence. From various opportunities of seeing how the human form and color are operated upon by external circumstances, we are convinced that these causes are adequate to produce that variation of features, color, and form of the head, which we are going to unfold by treading in the footsteps of Blumenbach, who has divided the human race into five leading varieties: we call them varieties, because there is no prominent difference of form to constitute our idea of genus, nor any unvarying peculiarity of color to exhibit the essentials of a species, since among our own variety we meet samples of a near approximation to the Ethiopian; among the American Indians of Mexico we have seen the authentic beauties of the Caucasian; and in large assemblies of Sandwich islanders we have observed every distinctive mark disappear by turns, till nothing was left us whence to commence our division but a sun tanned skin and a slight disproportion of thickness in the upper lip: and we have no doubt but if several of the best looking children were taken from their native soil, placed under our own, and compelled to intermarry among themselves, they would, were they supplied with the conveniences which the politer part of our societies enjoy, in a few generations lose all the characteristics of their peculiar variety.

1. *Caucasian*.—The skin white; the cheeks with a shaded suffusion of red, one of the most admired and almost peculiar perfections of this variety; the hair of a nut brown, brightened on one hand into a yellow, and on the other, through imperceptible gradations, darkened to a black; soft, long, and waving. The head harmoniously rounded into somewhat of a globular form; the forehead high and moderately expanded; the cheek bones narrow



and not prominent, directed downwards from the malar process of the superior maxillary bone; the alveolar edge round; the front teeth of each jaw placed in a perpendicular direction. The contour of the face oval; the development of its parts exhibiting a certain disposition to regard a parallelism with a plumb line when held up before the face; the features distinct, but preserving an agreeable habitude to each other; the nose narrow, and slightly aquiline, or at least having its dorsum somewhat concave; the mouth small; lips, especially the lower one, slightly bending outwards; the chin full and rounded. This variety embraces all the Europeans except the Laplanders and the rest of the Finnish race; the western Asiatics as far as the Obi, Caspian, and the Ganges; and the people of the north of Africa.

2. *Mongolian*.—The skin of an olive brown; face broad and flattened, with the parts but slightly distinguished; and the features, through a certain disposition to assume a flatness, blending with each other; the space between the eyelids flat and very broad; the nose flat; cheeks round and projecting; the aperture of the eyelids linear, and having the external canthus as it were pulled up towards the temples, which, in the fanciful terms of the French writers, is described as being bridled; the internal angle of the eye depressed towards the nose, and the upper eye-lid prolonged at that part into the lower by a rounded sweep; the chin somewhat prominent. This variety comprehends the remaining Asiatics, except the Malays of the extremity of the Transgangetic peninsula; the Finnish races of the north of Europe; the Laplanders; and the Esquimaux which are scattered over the most northern parts of America, from Bhering's Straits to the farthest habitable spot in Greenland.

3. *Ethiopian*.—The skin black; the hair black and crisp; the face narrow, projecting towards its lower part; forehead arched, narrow, and sloping; eyes level with the head; nose flat and broad, and in a manner confounded with the prominent cheeks; the malar fossa behind the infra orbital fossa deep; lips, particularly the upper one, very thick; gape of the mouth generally wide; lower jaw strong and massy; the alveolar edge lengthened, more elliptical than in the other varieties. Southern Africa, nearly the whole of New Holland, and some neighbouring islands.

4. *American*.—The skin of a copper color; the hair black, stiff, straight, and sparing; the forehead low; face ample, with broad prominent cheek bones; lineaments rounded and distinct; eyes deeply imbedded in the head; nose somewhat flattened but prominent; the skull usually light. This variety comprehends all the Americans except the Esquimaux. The heads of the Araucans and the Indians of some parts of Mexico are remarkable for the broad circumference of the lower part, which is assisted by the mode in which the hair is suffered to grow. This renders it easy to recognise the head of an Indian in contradistinction from that of the Spaniards at a very considerable distance; but, notwithstanding the differences just enumerated, one of the most agreeable countenances we ever beheld was that of an Indian girl in the village of Topajaliso, about nine leagues from Tepic, a city of Mexico.

5. *Malayan*.—The skin tawny; the hair black, soft, curled, thick, and abundant; face wider than that of the Ethiopian, approaching the plumb line

downwards; parts tolerably distinct from each other; parallel bones prominent; nose broad, and enlarged at the tip; upper jaw somewhat projecting; upper lip thicker than the Caucasian. This variety comprehends the natives of the islands scattered over the wide surface of the Pacific Ocean, the Philippines and Marins, of Molucca and the Sunda Isles, and of the peninsula of Malacca. We have sometimes, in a large assembly of natives at Oahu, surveyed their countenances one by one, and must confess that we have seen all the peculiarities of feature just mentioned disappear one after the other, till nothing was left us but a greater development of the upper lip as a prominent mark of distinction, and even color itself among those females who go habited like Europeans, and cultivate their personal beauty, was changed into an agreeable brown, not surpassing in shade some of our fair countrywomen.

#### ORDER II.—QUADRUMANA.

Lucretius is our authority for using manus as an adjective in composition. Bearing the signification of hand in our minds we shall extend the term finger to what, in other orders, would be called the toes of the hind feet. Besides the detail of anatomical differences peculiar to man, the quadrumana differs from the particeps rationis in certain obvious characters; which are, that the hind-feet have the thumb free, and so supplied and fitted with muscles as to be capable of being applied to any one of the fingers; that the fingers of the feet are long and pliant like those of the hands; and that all the species climb trees with great facility but cannot support themselves in an erect position, nor walk in that attitude but with difficulty, since the foot is placed, as it were, upon its outward edge: the os calcis, or bone of the heel, not being prominent enough to reach the ground. To these we may justly add the narrowness of the pelvis or basin of the abdomen, which is unfavorable to the equilibrium of the body, when erect, by not affording a capacious hollow for the reception and repose of the viscera as in man. But they have all their intestines very similar to ours; their eyes are directed before; their teats are seated upon the breast; the male organs of generation are pendant; and the cerebrum has three lobes, on each side of which the posterior covers the cerebellum. The temporal foss is separated from the orbit by a bony septum. In other respects, however, they withdraw by degrees from a similitude to man, by assuming a muzzle which progressively increases in length till it reaches that of a dog; by the acquisition of a tail; and by a progression more or less exclusively four-footed; nevertheless, the freedom of the fore-arm, and the complication of their hands, enable them to imitate almost all the actions and gestures of a man. They were long ago divided into two genera, simia and maki; which, by the multiplication of the secondary variations of their form, have become two small families between which we must interpose the genus ouistiti, which has but little relationship to either of the two families.

#### Family 1.—UNGUIBUS PLANIS.

They are all four-handed, and have in each jaw four straight cutting-teeth or incisors, and all the fingers with flat nails: two characteristics which raise them to a closer affinity with man than any of the subsequent genera can lay claim to. Their



molar teeth or grinders have also, like ours, only flat tubercles. These animals live naturally upon fruits, but their canine teeth, being longer than the rest, afford them a kind of armature of which we are destitute, and require a void in the upper jaw to lodge them when the mouth is shut. We may divide them into two sections.

### Sect. 1. APES OF THE OLD CONTINENT.

*Simiæ eodem numero molarium quo homines.* They have the same number of grinders as man; but they differ from each other by characters which afford the following subdivisions:—

#### Group 1.

Gen. 1. *Pithecus* of Geoffroy.—*Simiæ proxime ad hominem accidentes.* The orang; the *simia* of Erxleben. Πιθηκος, the Greek name for an ape, appears to be derived from πιθω, and to hint at the obsequious readiness with which he imitates the actions of man. They have the snout rather prominent, the facial angle being 65°; are destitute of a tail. They are the only monkeys which possess an os hyoides, a liver, and a cæcum resembling those of man. Some of them have the arms long enough to reach the ground when they stand upright.

The orang-utang, the *simia satyrus* of Linné. About three or four feet high. The body is covered with a pile of red thick-set hairs; the forehead equal in height to one-half of the visage; face bluish. Neither cheek-pouches nor gluteal callosities.

Gen. 2. *Hylobates*.—The black gibbon; *simia larynx* of Linné. Covered with thick, long, black hair; the circumference of the face and the hands ash-colored; almost without forehead. Cranium receding. Gluteal callosities small.

The ash-colored gibbon; the *simia leucisca* of Schroeber, the moloch of Andeb. Similar to the preceding, but covered with a soft ashy wool; countenance black. Common in Java and the Molucca Islands, where it is confined to the reedy grounds; climbs the highest branches of the bamboos, in which situation it balances itself by means of its long arms. In the other oranges the arms descend no farther than the knees. They are destitute of a forehead, for the head begins to recede immediately after leaving the ridge of the eye-brows.

The chimpanzee; the *simia troglodytes* of Linné. Covered with black or brown hair. If we might credit the accounts of travellers it draws near to the stature of a man, or even surpasses it; but no one has appeared in Europe to authorize this belief. They are found in Guinea and Congo; live in herds; construct huts with leaves; arm themselves with stones and clubs to defend their haunts from the encroachment of men and elephants; pursue the negroes and sometimes convey them to the woods.

All the apes of the old Continent which follow possess a liver divided into several lobes, a cæcum, thick, short, and without appendage, and an os hyoides in the shape of a shield or buckler.

Gen. 3. *Cercopithecus* of Erxleben.—*Simiæ veteris continentis caudâ instructæ.* Guenons. Muzzle moderate, with cheek pouches; facial angle 60°. a tail; nates furnished with callosities. The last molar tooth below has four tubercles likethe rest. The species are very numerous and of various sizes and colors; are spread over Africa and the Indies; live in herds; and make havock in the gardens and cultivated fields. Easily taken by surprise.

*Simia entellus* of Dufresne.—Yellowish white eye-brows and the four-hands black. This is one of a great many species and of those which have the tail very long.

The patas of Buffon; *simia rubra* of Gmelin. Whitish underneath.

Mangabey à collier of Buffon; *simia æthiops*. Chocolate brown above, whitish below and upon the nape of the neck. Cap of a bright red.

Mangabey sans collier of Buffon; *simia fuliginosa* of Geoffroy. Uniform chocolate brown above; pale yellow below; eye-lashes white. Buffon considers it as a variety of the preceding. Found in Madagascar.

Le Mauve. All black when full grown, but yellow in its youth. M. Lechenard has taken it many times in Java.

Le callitriche, or fair-haired ape; *simia sabæa* of Linné. Green above; white underneath; face black; cheeks white and tufted; end of the tail yellow.

Malbrouc of Buffon. *Simia faunas* of Gmelin. Green above; limbs ash-colored; face of a flesh color: tip of the tail yellow; a black and white band upon the eye-brows.

La mone; *simia mona* or *monacha* of Schroeber. Body brown; limbs black; breast, inside of the arms, and circle of the head, whitish. A band of black upon the forehead; a white spot upon each side of the tail.

Rolowai; *simia diana* of Linné. Blackish above, dotted with white; white beneath; the rump of an empurpled red; the face black, surrounded with white, and a small whitish beard upon the chin.

Monstac; *simia cephus* of Linné. Ash-brown; a tuft of yellow before each ear; a band of clear blue in the shape of an inverted cross upon the upper lip.

Ascagne; *simia petaurista* of Gmelin. Olive brown above; gray beneath; visage blue; nose white; a white tuft before each ear; whiskers black.

Hocheur; *simia nictitans* of Gmelin. Black-brown, dotted with white; nose alone white, in the middle of a black face; the ring around the eyes and lips reddish.

The last five species are all of them small, prettily variegated with color, and of a mild disposition. They are common in Guinea.

There is one large guenon which deserves to be remarked on account of the extraordinary form of the nose, which is

Gen. 4. *Nasica*.—*Simiæ nasu valde protracto.* Le meraigue, or long-nosed ape. Rahau. *Simia nasica* of Schroeber. Pale red, or fallow stained with red; the nose extremely long and in shape like a notched spatula. Inhabits Borneo; is gregarious; thronging in the morning and evening upon the large branches of the trees near the brinks of streams and rivers. Rahau is the cry it utters.

Another guenon of the same magnitude is distinguished by having no callosities upon the nates.

Gen. 5. *Natibus nullis*.—*Simia nemæus*. The douc. The most agreeably colored of all monkeys; body and arms gray; collar red and black; a yellow tuft upon each side of the head; a black band upon the forehead. Thighs, hands, and feet black; legs red; a large three-cornered white spot upon the rump; tail white. A native of Cochin-China. Douc or dok signifies a monkey in the language of that country.



Group 2. *Papiones* of Erxleben.

*Simia nasu* in signiores caudâ quam corpore brevior. They have the abagones or cheek-pouches and gluteal callosities like the guenons, but their mouth is more prominent, and their last grinder below has a tubercle more unequal. They vary in the length of the tail and muzzle. The principal part of them are more or less savage; and they all have a sac that communicates with the larynx above the thyroid cartilage, which is filled with air when they cry.

Gen. 1. *Magotus*.—Cauda jam nascente: Have the muzzle thick and moderately long, a small tubercle in place of a tail.

The Magot. *Simia sylvanus* of Linné, *pithecus* of Gmelin, *musco* of Schroeber. Covered with hair of a clear gray-brown color. An animal which best endures our climate. It is a native of Borneo, whence it is often brought to Europe, breeds sometimes with us, and is naturalised in the most inaccessible parts of the rock of Gibraltar.

Gen. 2. *Macacus*.—Cauda, naribus resupinis. Are distinguished from the magots by a tail more or less long, and from the cynocephali by their nostrils being oblique at the upper surface of the muzzle.

Ooandrou of Buffon, *simia silenus* of Linné, *lenina* of Gmelin. Black; the mane ash-colored; beard and round its head, whitish. It appears that there are some individuals which are fawn colored either wholly or in part, and others of different tints of brown and fawn color. From Ceylon.

Bonnet. *Simia sinica*. Fawn color above, white beneath, the face of a flesh color. The hairs upon the crown of the head dispersed like rays, and forming a kind of hat.

Aigrette of Buffon. *Simia aygula* of Linné. Olive-gray above, fawn color beneath. A tuft of hair upon the top of the head.

The macaque of Buffon, *simia cynomolgus*. Green above, yellowish or whitish beneath. Guinea, and the interior of Africa.

The maimon. *Simia nemestrina* of Linné. *Platypygus* of Schroeber. Deep brown above; a black band commencing upon the head, and growing weaker and weaker the whole length of the back; yellowish about the head and the extremities; a thin tail hanging only half way down the thighs.

The rhesus. Grayish; a stain of pale brown upon the head and the rump, sometimes upon the whole of the back.

Gen. 3. *Cynocephalus* of Cuvier.—*Simia ore canum*. They have a muzzle which is elongated and as it were truncated at the end, where it is perforated by the nostrils; this is what makes it resemble that of a dog more than of the rest of the monkeys. Tail of various lengths.

Papion of Buffon, *simia sphynx* of Linné. With a yellow greenness, approaching more or less to a brown; face black, tail long. They appear to differ in size according to their age. The full grown animal is frightful by its ferocity and brutish propensity.

Papion noir. *Simia porcaria* of Bodd. *Ursina* of Pennant. Of a black color; glaze, with yellow or green upon the whole forehead. Cape of Good Hope.

Tartarin of Belon. *Simia bamadryas* of Linné. Baboon with a short tail. *Simia leucophœa* of Cuvier. Gray-yellow; face black, tail very short and thin.

Gen. 4. *Mandrills*.—*Simia ore* in longitudinem porrecto. They have the nose longer than the rest of this order; facial angle being about 30°. Their tail is very short. They are very wild and fierce. Only one species known.

Gen. 5. *Pongos*.—*Simia fronte* in longitudinem porrecto. They have the long arms of the orangs and are like them deprived of a tail, with the cheek pouches of the baboons and guenons. The head is of a very peculiar form; the forehead is very receding; the cranium is small and compressed; the face of a pyramidal form on account of the ascending branches of the lower jaw, which indicate in the organs of voice some analogous disposition to that which has been observed in the alouatte. They possess the membranous pouch adhering to the larynx like the baboons. We are acquainted with only one species. Color brown, face and hands black. Borneo.

## Sect. II. MONKEYS OF THE NEW CONTINENT.

*Simia molarium* numero abundantes. The sapajous. *Cebus* of Erxleben. They have four grinders more than the rest, there being thirty-six teeth in all. Tail long; without cheek-pouches, nates clothed and without callosities. Nostrils lateral or on the side of the nose. All the large quadrumana of the New Continent belong to this division. Their large intestines are less tinged, and the cœcum is longer and thinner than in those of the preceding section. Tail prehensile.

Gen. 1. *Myotes* of Illiger.—*Simia capite arguto*. The alouatte. Distinguished by a pyramidal head. Upper jaw descends down much lower than the cranium, since the lower has its branches ascending very high, in order to lodge a bony drum formed by a vesicular swelling of the os hyoides, which communicates with the larynx, and gives an enormous volume and a frightful sound to their voice.

Common alouatte. *Simia seniculus*. Of a lively red brown; about the size of a fox. From the woods of Guiana. Live in troops.

Ouarino; *simia beelzebub*. Common in Brasil and Paraguay. The male is black above and red beneath; female brown. Common sapajous have the head very flat. The muzzle rather prominent. Facial angle 60°.

Gen. 2. *Ateles* of Geoffroy.—*Simia pollice mancæ*. Thumbs concealed under the skin. Tail naked underneath.

The chamek; *ateles pentadactylus* of Geoffroy. Differs from the rest in having a thumb with one of the phalangeal bones, but destitute of a nail.

The coaita; *simia paniscus* of Linné. Completely covered with black hair; not even the rudiments of a thumb.

White-faced coaita; *ateles marginatus* of Geoffroy. Black; a border of white hairs round about the face.

White-bellied coaita; *simia beelzebub* of Brisson. Black; white beneath; a flesh-colored circle round the eyes.

Yellow coaita; *ateles arachnoides* of Geoffroy. All these animals come from Guiana and Brasil. Their arms are very thin. Progression very slow.

Gen. 3. *Cebus* of Geoffroy.—*Simia quæ ope caudæ descendunt, pollice gaudentes*.

The sajou; *simia apella* of Linné. Black round the face. All the shades of the body vary between the black, brown, and the fawn color, even sometimes white.



The sajou; *simia capucina* of Linné. Distinguished from the preceding by a small crest of hairs on each side of the forehead.

The sajou; *simia fatuellus* of Gmelin.

Gen. 4. *Callitriche* of Geoffroy.—*Simiæ* quarum cauda minus apta ad prehendum est. Tail ceasing to be prehensile.

The saimiri; *simia sciurea*. About the size of a squirrel; of a gray yellow; fore-arms, the legs and the four hands yellowish fawn color.

Gen. 5. *Pithecia* of Desmarest and Illiger.—*Simiæ* vulpium caudâ. Pennant. The sakis. Tail not prehensile, tufted with hair; whence they are called fore-tailed monkeys.

Yake; *simia pithecia* of Linné. Blackish; around the face white.

Saki Humb.; *simia satanas* of Hoffmansegg. Quite black.

Red bellied saki; *pithecia rufi ventris* of Geoffroy. From Guiana and Brasil.

#### Family 2.—UNGUIBUS COMPRESSIS.

*Simiæ* pollice vix libero.

Gen. *Haple* of Illiger; *arctopithecus* of Geoffroy.—The Ouistiti. Head round, face flat, nostrils lateral, nates clothed, destitute of cheek pouches. Tail not prehensile; grinders in number twenty, like the monkeys of the old continent. All the nails compressed and pointed, except those of the hind thumbs. The fore thumbs possess so little freedom of independent motion, that the title of quadrumanous is bestowed upon them with some hesitation.

Common ouistiti; *simia jacchus* of Linné. Body black; two tufts of hair before the ears.

Tamarin; *simia midas* of Linné. Pinche; *simia cecidus* of Linné. Black; four hands yellow; gray with long white hairs upon the head, hanging down behind the ears. Guiana.

Midas ursula of Geoffroy. Black striated ape.

Lion monkey. Marakin; *simia rosalia*. White head surrounded with a fawn colored mane; tail brown at the tip. Surinam.

The mico; *simia argentata* of Linné. Gray silvery black; sometimes all white; tail brown, from the banks of the Amazons.

#### Family 3.—INCISORIBUS A PRESPECTO AVERIS.

The makis, lemur of Linné, according to Linné comprehend all those quadrumana which either in the upper or under jaw have more incisors than four, or at least they are otherwise directed than in the monkeys.

Gen. 1. *Lemur*.—Caudâ longâ. Makis proper Six lower incisors compressed and leaning outwards; four above straight; intermediate pair crossing; canine teeth long. Molar those of monkeys. Tail long, nail of the index pointed, all the rest flat. Madagascar.

The moccoco; lemur catta of Linné. Ash gray, tail tinged with black and white.

Venei; lemur macaco of Linné. Variegated with large black and white spots.

The mongoas; lemur mongos of Linné. All brown, face and hands black.

Gen. 2. *Lichanotus* of Illiger.—*Simiæ* hujus familia caudâ nudatæ. The indri. Teeth like those of the preceding, except that they have but four below. Madagascar.

Gen. 3. *Sterops* of Illiger.—*Simiæ* molaribus paulo horrentibus caudâ nudatæ. The loris; sloth monkeys. Teeth and nails of the makis; grinders

rough with points; the short muzzle of a mastiff; body slender; without tail. These animals feed upon insects, and some of the small birds and quadrupeds. Approximating to the sloths in having the extreme branches of their arteries divided in the same manner.

Loris. Sloths of Bengal; lemur tardigradus. Gray fawn, a brown line running along the back.

Slender loris; lemur gracilis. Of the same color as the last, without the dorsal line. Nose raised by an elevation of the intermaxillary bone.

Gen. 4. *Otaclinus* of Illiger.—*Simiæ* auribus e membrana efformatis. The galago of Geoffroy. They have the teeth, nails, and the insectivorous regimen of the former; elongated tarsi which give to the hind feet a disproportioned length; tail long and tufted; ears large and membranous; eyes large. To this tribe Cuvier would assign the lemur potto of Gmelin.

Gen. 5. *Tarsius* of Cuvier.—The tarsiers. The long tarsi, and all the detail of the preceding; but the interval between the incisors and the molar teeth, is replenished with numerous small canine teeth. Incisors four above, only two below. Nocturnal animals. Food consisting of insects. Inhabit the Moluccas.

Lemur spectrum.

#### Series ORDINUM PLERUMQUE CARNIVORA.

Feræ of Linné. Compagines maxillarum, ad amussim cardinis motu gaudentibus. This series of mammiferous animals have three sorts of teeth like man. They subsist upon animal food, by so far more exclusively as their grinders are better calculated for tearing. Those which have their grinders in whole or in part tuberculous feed more or less upon vegetable substances. Others which have them rough with conical points feed upon insects. The articulation of the lower jaw is directed crosswise, and confined like a hinge, so as not to allow any degree of horizontal motion. That is to say, they can only open and shut the mouth, and not grind the morsel, as many other animals do, by a lateral movement of the under jaw, in masticating their food. Their cranium is narrower, and the zygomatic arches wide and elevated, in order to give room for the muscles of the jaws. Their foramen possesses a capability of being moved circularly, but with less facility than that of the quadrumana. Olfactory bones variously ramified and lamellated, in order to amplify the extent of pituitary membrane, which renders the sense of smelling so wakeful to the impression made upon it by odorous particles.

#### ORDER III.—CHEIROPTERA.

Cute pedum in alas extensâ. They exhibit some affinities with the quadrumana, in having the male organ of generation pendant, and in the nipples being placed upon the breast. Their distinctive character consists in having the integuments of the legs and feet expanded, by the elongation of some of the phalanges into broad membranous wings. This disposition of structure requires strong clavicles and large scapulae, in order that the shoulder may possess a commensurate firmness and solidity; whilst the rotation of the fore arm is prevented, as it would be incompatible with the active force necessary for soaring in the air. All these animals have four large canine teeth, except in one species found by the writer in the Bonin Islands; but the number of their incisors



ZOOLOGY.  
Class Mammalia.  
ORDER QUADUMANA.

PLATE I

Genus Pithecius  
*Simia satyrus*  
*Orang Outang*



Genus Hylobates  
*Long armed Gibbon*



Genus Hapale  
*Simia maculosa*  
*The Striped Monkey*



Genus Cercopithecus  
*Simia mona*  
*Varied Monkey*



Genus Hapale  
*Simia argenta*  
*Fair Monkey*

*Lemur catta*  
*Ring Tailed Macaeco*



*Lemur mongoos*







# ZOOLOGY.

PLATE II.

Order Amphibia.  
*Ucha ursina.*  
*Urine Seal.*



Order Cetacea.  
*Trichechus manatus.*  
*Manatee.*



Order Amphibia.  
*Mammalia lutris.*  
*Sea Otter.*

Order Rodentia.  
*Cavia aguti.*  
*Long Nosed Cavy.*



Order Rodentia.  
*Hystrix prehensilis.*  
*Brazilian Porcupine.*



Order Rodentia.  
*Hystrix dorsata.*  
*Canada Porcupine.*

Order Marsupialia.  
*Macropus gigantea.*  
*Great Kangaroo.*







Order Edentia.  
*Bradypus tridactylus.*  
*Three toed Sloth.*

Order Edentia.  
*Myrmecophaga didactyla*  
*Two toed or Little Ant Eater.*

Order Edentia.  
*Myrmecophaga jubata.*  
*Great Ant Eater.*

Order Monomotre.  
*Harinchus paradoxus.*  
*hilled trichorinchus*

Order Edentia.  
*Dasybus chacoensis.*  
*Uacinctus Lin.*  
*Twelve banded Armadillo.*

Order Edentia.  
*Manis tetradaactyla.*  
*Long Tailed Manis.*





ZOOLOGY  
Class Mammalia  
ORDER RUMINANTIA

PLATE IV.

Genus Moschus  
*Thibet Musk*



G. Cervus  
*Spotted Axis*



G. Cervus  
*Rein Deer*



G. Camelopardalis  
*Camelopard*



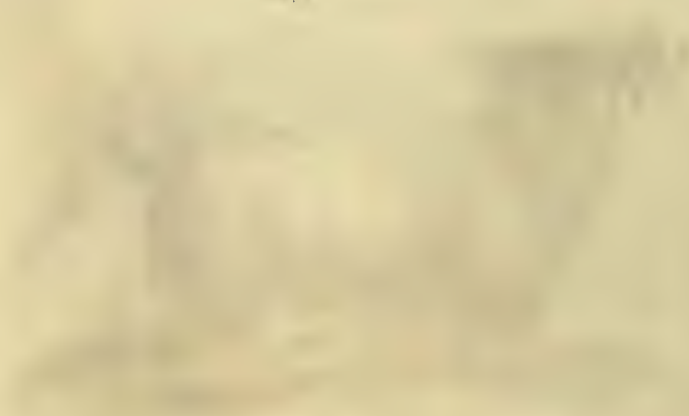
G. Moschus  
*Guinea Musk*



J. Shury sculp.



24





Genus Antholopli  
*Antelope*

*Guinea Antelope*



Genus Capree



*Angora Goat*

*Syrian Goat*

*Chamois*







*Genus Vespertilio*  
*Vampyre Bat*



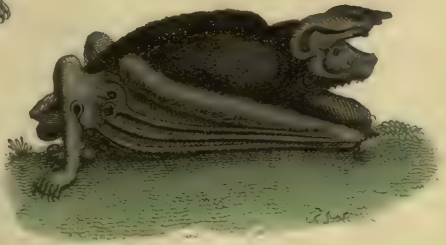
*C. Pleeditis*  
*Long Eared Bat*



*C. Vespertilio*  
*Cordated Bat*



*C. Noctilio*  
*Peruvian Bat*



*C. Phyllostoma*  
*Spectre Bat*







# ZOOLOGY.

PLATE VII.

Class Mammalia  
ORDER DIGITIGRADA PLANTIGRADA &c

*Viverra zibetha*  
*Zibet*



Genus Nasua.  
*Viverra nasua*.  
*Brazilian Weasel*.

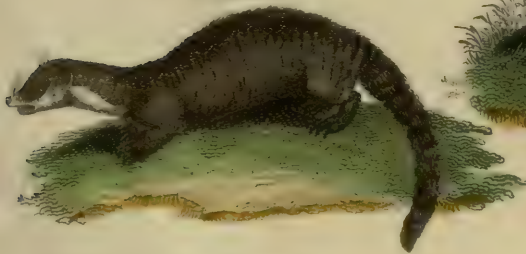


*Erinaceus caudatus*.  
*Madagascar Hedgehog*



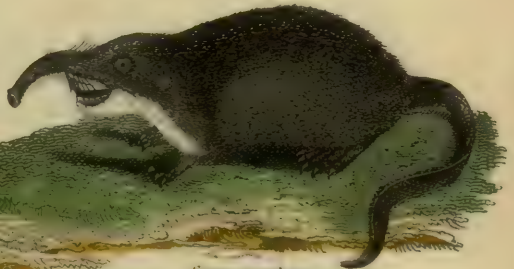
Genus Gulo.  
*Ursus gulo*.  
*Glutton*.

*Viverra Ichneumon*.  
*Ichneumon*



Genus Meles.  
*Ursus meles*.  
*Badger*.

*Talpa longicaudata*.  
*long tailed Mole*



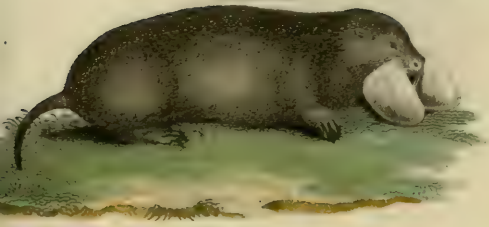
*Sorex moschatus*.  
*Musk Shrew*





Class Mammalia  
ORDER RODENTIA.

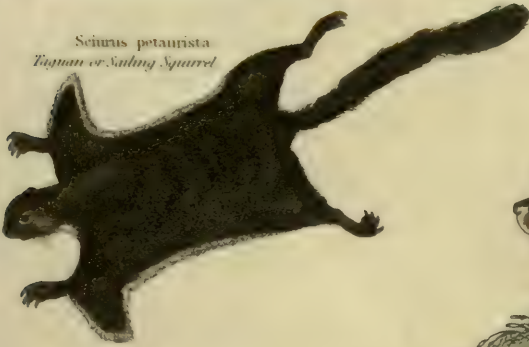
*Mus lasiurus*  
Canada Rat



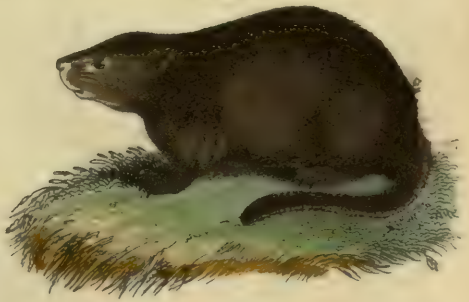
*Mus ericetus*  
German Hamster Rat



*Sciurus petaurista*  
Tasman or Noddy Squirrel



*Mus zibethicus*  
Muskrat



*Hyrax capensis*  
Capri Hyrax



*Lepus alpinus*  
Alpine Hare



*Dipus jaculus alagata*  
Leibster



*Dipus sagitta*  
Arborean Leibster







*Caprimulgus grandis.*  
Grand Goat Sucker.

*Caprimulgus longipennis.*  
Leona Goat Sucker.

*Certhia cerulea.*  
Blue Creeper.

*Procnia carunculata.*  
Chatterer.

Genus *Fulberiza.*  
Short Tailed Bunting.

*Turdus cyanurus.*  
Blue Tailed Thrush.

Genus *Coccythraustes.*  
Fan Tailed Grosbeak.

Genus *Colius.*  
White Backed Colly.







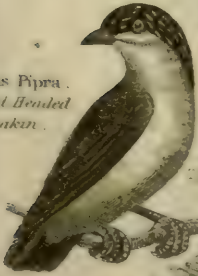
*Tanagra Tatro.*  
*Paradise Tanager.*



Genus *Sylvia*.  
*Thorn Tailed Warbler.*



Genus *Pipra*.  
*Red Banded Parakeet.*



Genus *Sylva*.  
*Superb Whist Ear.*



Order *Tringillae*.  
*Phytotoma rara.*  
*Chili Phytotoma.*



Genus *Parus*.  
*Crested Titmouse.*



Order *Gallinae*.  
*Crax alector.*  
*Curawow.*



*Muscicapa malachura.*  
*Soft Tailed Flycatcher.*







Genus Buphaga.  
*Beef Eater.*



Genus Coracias.  
*The roller.*



Genus Corvus.  
*Crested Jay.*



Genus Buceros.  
*Rhinoceros Hornbill.*



Genus Merops.  
*Wattled Bee Eater.*



Genus Oriolus.  
*Crested Oriole.*



Genus Paradisae.  
*King Bird of Paradise.*



Genus Oriolus.  
*Baltimore Oriole.*



Genus Icterus.  
*Great Billed Tody.*







# ZOOLOGY.

Class Aves.  
ORDER PASSERES.

PLATE XII

Sitta European  
European Nuthatch.

Bucco lathamii  
Barbet.

Genus Pic.  
Carolina Woodpecker.

Genus torquilla.  
Common Wrenneck.

Genus Alcedines.  
Grested Kingfisher.

Genus Glaucoptis.  
Wattle Bird.

Genus Upupa.  
Red Billed Hoopoe.

Genus Certhia.  
Hook Billed Red Creeper.

Genus Trochili.  
Tufted Necked Humming Bird.







Order Palmipedes.  
*Haeton ethericus.*  
*Common Tropic Bird.*



Order Palmipedes.  
*Plutus punctatus.*  
*Spotted Shag.*



Order Palmipedes.  
*Colymbus cornutus.*  
*Horned Grebe.*



Order Grallæ.  
*Palamedea cornuta.*  
*Horned Screamer.*



Order Grallæ.  
*Cancroma cochleria.*  
*Crested Boat Bill.*



Order Grallæ.  
*Scopus umbretta.*  
*Tui.*



Order Grallæ.  
*Parra jacana.*  
*Chestnut Jacana.*





# ZOOLOGY.

Class Aves.

ORDER PALMIPEDES, GRALLÆ, &c.

PLATE XIV.

Order Grallæ.  
*Fulica porphyra*.  
*Purple Gallinule*.



Order Palmipedes.  
*Rhyncops nigra*.  
*Black Skimmer*.



Order Palmipedes.  
*Recurvirostra americana*.  
*American Avocet*.



Order Palmipedes.  
*Alca puffinus*.  
*Tufted Auk*.



Order Grallæ.  
*Ardea antiqua*.  
*Indian Crane*.



Order Grallæ.  
*Vaginalis alba*.  
*White Sheath Bill*.







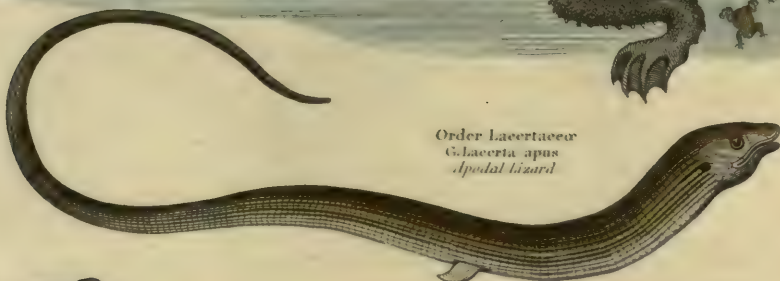
Order Testudines  
Genus Testudo imbricata  
*Hawksbill Turtle*



Order Batrachii  
G. Rana pipa  
*Sorbian Frog with its Young*



Order Lacertaceæ  
G. Lacerta apus  
*Apodal Lizard*



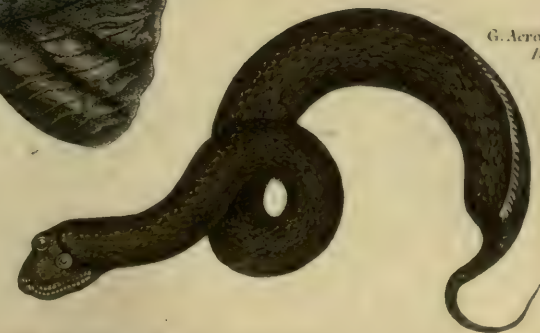
G. Amphibena  
fuliginosa  
*Fuliginous Alba*



Order Lacerto  
G. Lacerto draco  
*Flung Dragon*



G. Acrochordius dubius  
*Doubtful A.*





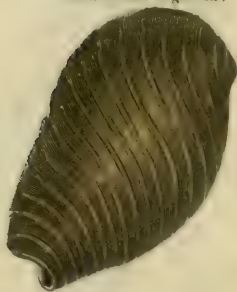


# ZOOLOGY.

PLATE XVI.

Genus *Bulla* *lignaria*.

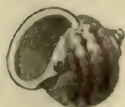
*G. Turbo* *trilineatus*.



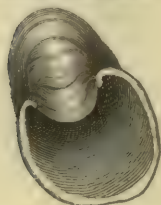
Order *Chitropoda*.  
*Conus* *Lepas* *anserifera*



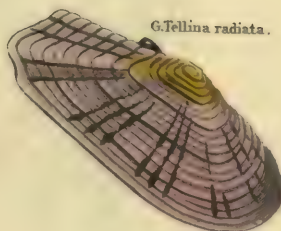
*G. Nerita* *carena*



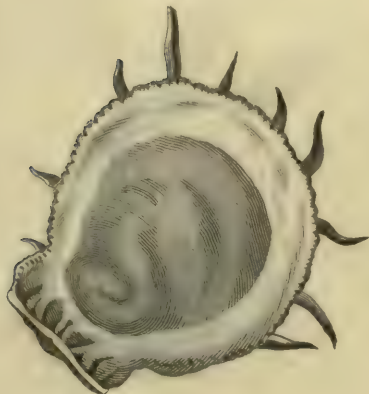
Order *cephalopoda*.  
*G. Nautilus* *pomalius*.



*G. Tellina* *radiata*.



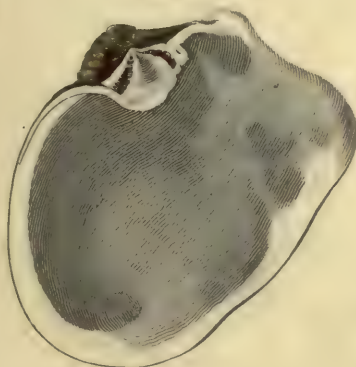
*G. Spondylus* *gedaropus* *Var*:



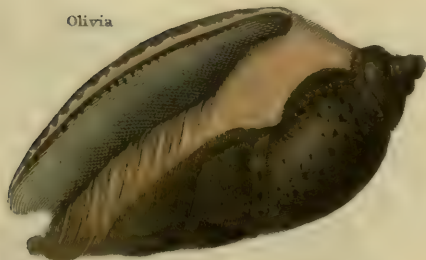
*Pallida*



*G. Mya* *truncata*.

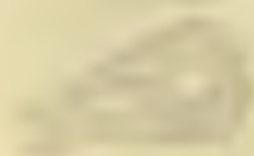


*Olivia*



*G. Arca* *Nodulosa*.  
*Inside*.



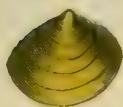




Genus *Patella fornicata*.



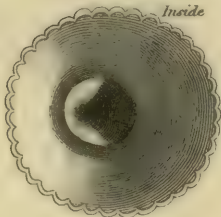
*G. Tellina bimaculata*.



*G. Buccinum harpa*.



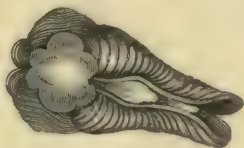
*G. Patella striata*.  
Inside



*G. serpula reticulata*



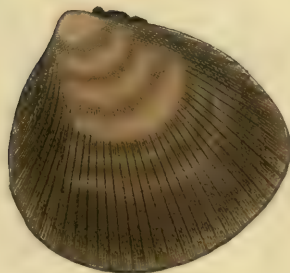
*G. Pholas striata*.



*G. Serpula papillosa*.

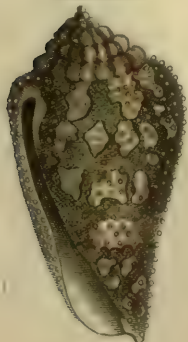


*Tornatilis*.



*Mac radiata*.

*G. Comus ammiralis*.  
Sebas. C.n.C.



*G. Cypraea vespa*.



*G. Trochus*.  
*Turritus*.







ZOOLOGY.  
Class Insecta.  
ORDER HYMENOPTERA.  
Order Neuroptera  
Panorpa communis.  
Male

PLATE XVIII.

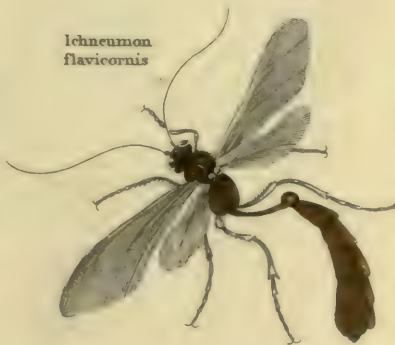


Order Neuroptera  
Panorpa coa.



Tenthredo  
bimaculata

Ichneumon  
flavicornis



Tiphia villosa



Sphex gigas



Chalcis sispe



Scolia flavifrons



Chrysis splendid



Ammophila sabulosa



Thynnus emarginatus



Leucopsis dorsigera

Mutilla Americana  
Female



Order Diptera  
Tipula plumosa







*Bruchus bipunctatus*

*Class Insecta.*

ORDER COLEOPTERA.

*Hispa  
mutica*

*Curculio  
rhinomacer-  
-anchragus*

*Curculio hemipterus*

*Saperda  
collaris*

*Cerambyx imperialis.*

*Rhagnum bifasciatum*

*Prionus longipennis*

*Cytus thoracicus*

*Lamia quadrimaculata*

Order Diptera  
*Empis forcipata*

*Carabus  
maculatus.*

*Deliscus latissimus*

\* *Magnificol*







G. Pimelia tragosita



G. Helops fusca



Genus Bruchus



Genus Hispa



G. Mylabris cichorei Var.

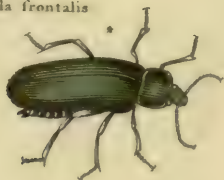


G. Mylabris cichorei Tar.

G. Mordella Bicolor



G. Mordella frontalis



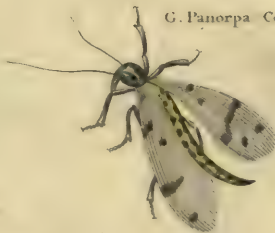
G. Forficula gigantea

G. Raphidia Ophiopsis



Zygaena

G. Panorpa Communis



G. Thrips physapus



Sphinx



G. Hippobosca ovina



Genus Curculio



G. Hippobosca ovina



Genus Cantharis



Magnified



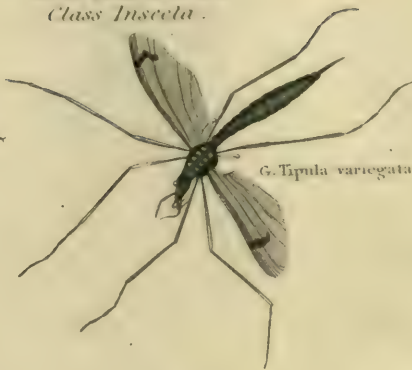


# ZOOLOGY.

## Class Insecta.

PLATE XXI

mus Asilus tentans



G. Tipula variegata

G. Oestrus Equi



G. Diopsis lehneumonea



Genus  
Musca grossa



G. Stomoxys pungens



G. Aphis persica



G. Conops ferruginea



G. Chermes alni



G. Cimex aurantius



G. Hippobosca  
Equina



G. Sexia



Male  
African  
White Ant



G. Lepisma polypoda



G. Padura villosa



Magnified







Genus 17 Leptura



Genus 18 Necydalis



Genus 21 Elater



G. Gryllus subulata



G. Gryllus gryllotalpa



G. Notonecta glauca



G. Mantis gungylodes



G. Cicada hisperiana



G. Fulgora candelaria



G. Cicada hematodes





Genus *Goliathus cecicus*

*G. scotias*

*G. Demnestes pedicularius*

*G. Silpha hemorrhoidalis*

*G. Scarab cacer*

*G. Pinus imperialis*

*G. Hister planus*

*G. areus schrophulariae*

*G. Silpha germanica*

*G. Melyris veridris*

*G. Opatrum sabulosum*

*G. Tritoma rufipes*

*G. Tritoma cinnamomeum*

*G. Cassida grassa*

*G. Chrysomela boleti*

*G. Coccinella frontalis*

*G. Chrysomela marginella*

*G. Somela gantea*

*G. Tenetrio gigas*

*G. Crioceris campestris*





Genus Tarantulus caudata



G. Aranea globosa



G. Ipeira



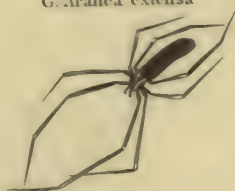
G. Pycnogonum  
balanarium



G. Phalangium caneroides



G. Aranea extensa



G. Aranea fasciata



G. Nymphion gross



G. Aranea tarantula



G. Aranea angulata







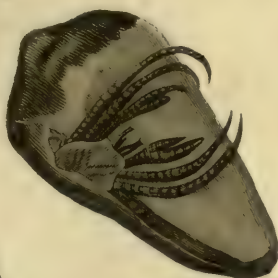
Genus *Cancer* personatus



*G. Dorippe* facchino



*G. Cancer* strigatus



*G. Cancer* narval



*G. Cancer* Ursus minor



*G. Cancer* dubius



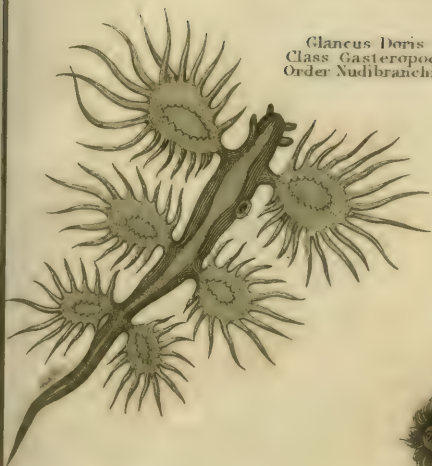
*G. Cammurellus* paludosus



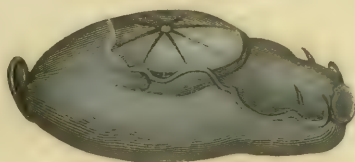




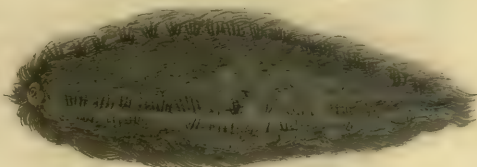
*Glancus Doris*  
Class Gasteropoda  
Order Nudibranchia



*Aplysia depilans*



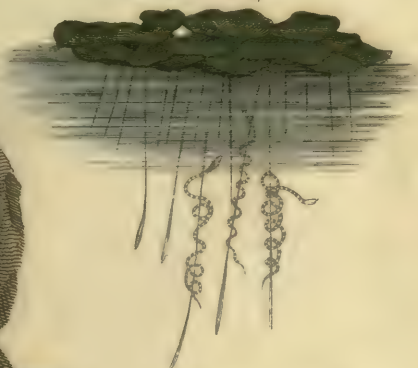
*Aphrodita aculeata*  
Class Annelida  
Order Dorsibranchia



*Actinia dianthus*  
Class Acophala  
Order fixa



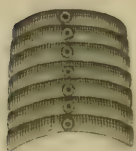
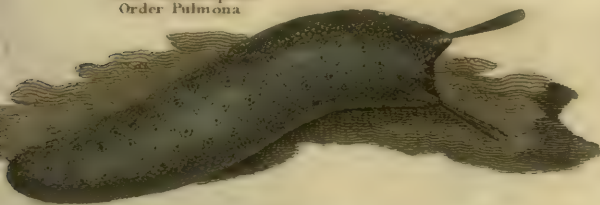
*Nais Serpentina*  
Class Annelida  
Order Abbranchia



Genus *Tenia*  
Class Entozoa



Genus *Onchidium*  
Class Gasteropoda  
Order Pulmona







*Madrepora*  
*Agathus*



*Madrepora*  
*Pileus*



*Tubipora musica*



*Madrepora*  
*Labyrinthica*



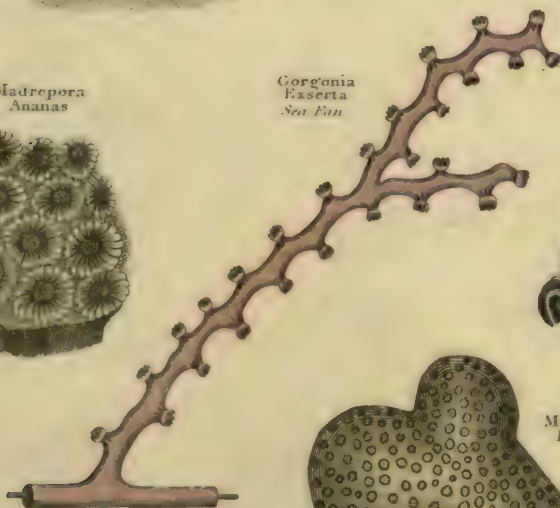
*Madrepora*  
*Gyrosa*



*Madrepora*  
*Ananas*



*Gorgonia*  
*Exserta*  
*Sea Fan*



*Madrepora*  
*Phrygia*



*Madrepora*  
*Parites*









Isis  
Coccinea



Gorgonia  
Nobilis

Corallina  
Officinalis



Corallina  
Incrasata

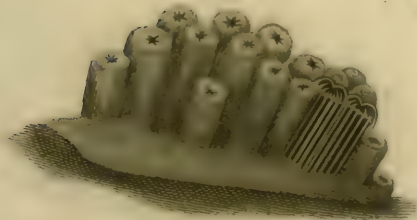


Flustra  
Bombycina



Sertularia  
Filicula

Acyonium  
Gorgonoides



Antipathes  
Subpinnata





varies. They were long ago divided into two genera, *vespertilio* and *galeopithecus*, with reference to the extent of their organs of flight.

Family 1.—*VEPERTILIONES. BATS.*

*Ossibus digitorum in longum deductis.* They have the arm, forearm, and the fingers extremely elongated, and form true wings by the membrane, which fills up the intervals. Bats fly very high, and with great celerity. Their pectoral muscles have a thickness proportioned to the motions they are obliged to perform, and the sternum has in its middle a ridge to afford them a line of attachment, like that of birds. The thumb is short, and armed with a crooked nail; which serves them for the double purpose of climbing and suspension. Their hind feet are weak, divided into five equal toes, and are all furnished with nails. The intestines are without a cæcum. Their eyes are excessively small; their ears are often very large, and form with the wings an enormous extent of membranous surface almost naked, and generally endued with sensation to enable the bats, in making their way among the turns and windings of their labyrinths, to direct themselves by their various impressions which the air makes them, when darkness has rendered eye-sight useless.

*Bey 1. Vespertiliones ungue de medio digito.*

Gen. 1. *Pteropus* of Brissius. The rosetta; frugivorous bats. They have four sharp incisors in each jaw; their grinders have a flat crown. They derive their nourishment chiefly from fruits: they can however pursue the small birds and quadrupeds. The membrane is deeply notched between their legs, and they are nearly or wholly deprived of a tail. Their index, and the shorter half of the medius, has the third phalangeal bone, which is wanted in the other bats. Ears small; tongue beset with the recurved points. This genus may be divided into two sub-genera:—

a. *Sine caudâ.* Rosettes without tail.

Black rosette; *pteropus edulis* of Geoffroy. Black brown, deepened above: nearly four feet in extent. Found in Sunda and the Moluccas. Its flesh is very delicate food.

Rosette of Edwards; *pteropus Edwardsii* of Geoffroy. Fawn color, back of a deep brown. Madagascar.

Rosette of Buffon, *pteropus vulgaris* of Geoffroy. Brown; face and sides of the back brown and fawn color.

Collared rosette. *Pteropus rubricollis*. Gray-brown; neck red. Found in the same islands; lives in hollow trees.

The moping rosette; *pteropus pselaphon* of Lay. Brownish black; back sprinkled with hoary hairs. The following account of this new species of *pteropus* was written by us while at Bonin, a small cluster of islands lately made known to the English, where we had, during the short stay of four days, several opportunities of noting its habits and propensities. We entertained some doubts at first of the difference of its species, and were inclined to esteem it as a variety of the *edulis*, with which it agrees in its frugivorous habit; but the uniformity of color, and the comparative smallness of the canine teeth, induce us, with the concurrence of several other naturalists, to consider it as a distinct species. Alar web, or the membranous expansion of the integuments which cover the toes of the fore-feet, black; assuming a brownish hue in

drying. Interfemoral web, or under prolongation of the meninges, which invest the leg and thigh of the hind quarters, about half an inch in width, and partly clothed with hair. Claws trenchant; the large one upon the medial phalangeal bone, often used in dressing the hair of the head. Teeth; primores, four above and four beneath; but they are various, the canine often supplying the place of the incisors, and vice versa. Canine, small. Tongue proportionably large, with a fleshy pavement. Form of the nasal apertures an incipient volute. Stomach, a loose membranous bag, which, when opened, was found to contain a small portion of acid pulp. Intestinal canal long; diameter equal, without cæcal appendages. It sucks the juices of the fruit of the sapota and pandanus, rejecting the fibrous part, but since, in feeding, a certain portion must necessarily enter the mouth, it is rolled up in the nollow of the palate; when the juices are thus abstracted, it is removed by an oblique application of the tongue, to make room for the next juicy morsel of parenchyma. Whilst most other animals repose by reclining the head towards the earth, the Bonin bat turns its head towards the heavens, and, to obviate the inconvenience of direct light falling upon the optic nerve, it enjoys the faculty of shutting the ordinary passage of light through the crystalline lens; and of consequence, the pupil disappearing, nothing save the brown iris is seen to pervade the eye-ball. In this blind condition it climbs trees, groping its way up to the topmost branches, where, after extending its claws to learn whether there be another sprig within reach still higher than its present situation, it quietly drops its weight upon the hind claws, and composes itself to rest, apparently with as much inward felicity as a traveller feels, when, after descending some perilous height, he has safely reached a smooth level. It would seem that they make but little use of the eye-sight in the day-time except when on the wing, trusting in the search of their food a good deal to the sense of smell, which they enjoy in perfection, for they often sneeze when captured, which is a sign of the great irritability of the pituitary membrane. A cluster of the ripe fruit of the pandanus odoratissimus, carried by some boys, drew many of these animals to the spot. One that had been caught and tied by the leg, though blindly striving to get free with unavailing diligence, forgot its fears and embarrassment, when a piece of that fruit was held at the distance of a yard or two from it, and eagerly pawed after the odorous morsel; which being obtained, and finding its gyves loosened, it began forthwith to hasten away, holding the booty firmly in its mouth. One of them, being thrown by the sailors into the sea, labored some time to keep its head above water and reach the shore; but, finding all attempts vain, it quietly resumed its wonted position of rest, and resigned itself to a watery death. When cast upon a raft by the same unfeeling hands, it made some attempts to suspend itself from a projection, without dipping its head into the water; but perceiving its efforts to be useless, it abandoned the float, and swam pertinaciously after the boat, deeming that it saw some object at a distance which would afford a comfortable resting-place. When taken on board, and confined, they did not betray any signs of fear, and ate without repining the fruit that was given them; but, being set at liberty, they climbed to the

highest parts of the rigging, and there found a convenient situation for repose. When thirsty it descends a tree on the margin of the rills, and, after sipping a little refreshment, reascends the trunk, and takes its departure from the branches.

*β. Cauda instructi.*—Rosettes with a tail; four incisors in each jaw. All the species of this division are described by Geoffroy. Some of them are woolly and gray.

*Pteropus Ægyptiacus.*

*Pteropus amplexicaudus.* Lives in subterraneous places, is of a reddish color, and has the tail longer, and partly connected with the interfemoral membrane. Indian Archipelago.

Gen. 2. *Cephalotes* of Geoffroy.—*Vespertiliones* membranæ ex indice ungue mancæ alæ inter se junctæ. They have the same number of grinders, but the index is destitute of a nail, though provided with three phalangeal bones. The alar membranes instead of joining the flanks are coupled over the back to which they adhere by vertical partition. They often have but two incisors.

*Cephalotes pteronii* of Geoffroy. Brown or reddish. From Timor.

*Bevy 2. Vespertiliones molaribus horrentibus, medio digito plerumque sine ungue.*

Their membrane is always extended between their legs; we may divide them into two groups.

Group 1. *Vespertiliones medio digito assibus perfecto.*

Gen. 1. *Molossus* of Geoffroy.—*Vespertilio auribus super ore inter se junctis.* Muzzle simple; ears long and short, rising near the corner of the mouth and uniting over the snout. The earlet short and not enclosed within the auricle. Six incisors in each jaw. The tail occupies the whole length of the interfemoral membrane, and often extends beyond it. All the species of this genus are found in America.

Gen. 2. *Myctonome* of Geoffroy.—*Vespertilio labio superiore in sinum sese scindente.* Four incisors below, the upper lip high and very deeply notched; in other respects they resemble those of the preceding genus.

Gen. 3. *Noctilio.*—*Vespertilio nasu sulcis atque verrucis.* Muzzle short, inflected, cloven, and furnished with warts and fanciful sulcations. Ears separated. They have four incisors above and below. Tail short and free above from the subfemoral membrane.

*Vespertilio leporinus* of Gmelin. Pale fawn color.

Gen. 4. *Phyllostoma* of Cuvier and Geoffroy.—*Vespertilio nasu, folio alto.* Regular number of incisors in each jaw, but a part of those below often fall out, displaced by the encroachment of the canine teeth. They are further distinguished by a membrane in form of a leaf raised across the tip of the muzzle. The tragus generally resembles a small leaf more or less toothed. The tongue, which is capable of very great elongation, is covered with papillæ apparently calculated for sucking. A number of tubercles are arranged symmetrically upon the lips. These animals can run upon the earth better than the rest of the bats. Under this genus are included three subgenera:—

*a. Sine caudâ.*—*Phyllostomas* without tails. The vampire. *Vespertilio spectrum.* Nasal leaf oval and furled like a fan. Color red-brown. About the size of a magpie.

*β. Caudâ implicita.*—*Vespertilio hastalus.* Nasal leaf in the shape of a spear; margin entire.

*γ. Caudâ libera.*—*Phyllostoma crenulatum.*

Group 2. *Vespertiliones digitis omnibus imperfectis.*

This group have the index with but one phalangeal bone, while the other fingers have two.

Gen. 1. *Megaderma* of Geoffroy.—*Vespertilio auribus superne junctis.* Which have the nose more compressed than that of the phyllostoma; the earlet large and very often forked; the auricle of the ears, which are connected to one another on the crown of the head, very wide. The lips and tongue are smooth. Interfemoral membrane entire. No tail. They have four incisors above: more have been found below; and it appears that the intermaxillary bone remains a cartilage.

*Megaderma frons* of Geoffroy. Nasal leaf oval, and almost as large as the head of the Africa.

*Vespertilio spasma* of Linné. Senegal and the Indian Archipelago.

Gen. 2. *Rhinolophus* of Geoffroy and Cuvier.—*Vespertilio in ore simulatione ungulæ.* They have the nose furnished with various complications and crests bent over the face so as to present the figure of a horse-shoe. The tail is long, and is placed in the interfemoral membrane. Four incisors above and three small ones below.

*Vespertilio ferrem equinum*, L. R.; bifer of Geoffroy. Inhabit quarries; suspend themselves by the feet, shrouded by their wings.

Gen. 3. *Nyctoris* of Cuvier and Geoffroy.—*Vespertilio fossa in ore auribus liberis.* Face hollowed; a foss marked also upon the cranium; nostrils surrounded by a circle of jutting planes; four incisors above without intervals, and six below. Their ears are large and not united; tail confined in the interfemoral membrane.

*Vespertilio hispida* of Linné.

Gen. 4. *Rhinopoma* of Geoffroy.—*Vespertilio fossa in ore, auribus interse junctis.* They have a foss less marked, nostrils at the tip of the muzzle, and a small plate above; the ears are united; the tail prolonged beyond the membrane. Egypt, among the pyramids.

Gen. 5. *Thaphozous* of Geoffroy. *Vespertilio fossa in ore.* Have the foss in the face, but the nostrils are without varied plates. We do not find more than two incisors above and four below; their ears are pointed; tail fixed above the interfemoral membrane. Geoffroy describes them as found among the pyramids of Egypt.

Gen. 6. *Vespertilio.*—*Nasu nudo,* which has the nose without leaves or any other distinguishing marks. Ears separated; four incisors above, of which the middle one is diverging, and six below, sharp and somewhat hooked. The tail is implicated in the membrane.

*V. murinus* of Linné. Gray; ears as long as the head.

*V. noctua* of Linné. Brown; ears shorter than the head; earlet round.

*V. serotinus* of Linné. Fawn-colored; wings and ears black; auricle triangular; shorter than the head; earlet small.

*V. pipistrellus* of Gmelin; smallest of France. Brown; has the ears and earlets triangular. Long-eared bats.

Gen. 7. *Plecotus* of Geoffroy.—*Vespertilio auribus capite majoribus.* Ears larger than the head.

*Vespertilio auritus.* Common in this country.



## Family 2. —GALEOPITHECI. FLYING CATS.

*Ossibus digitorum non in longitudinem deductis.* They have all the fingers of their hands furnished with cutting nails, and not longer than those of the feet, so that the membrane which occupies the intervals between them, and is extended to the sides of the tail, can scarcely fulfil the office of flight; canine teeth, short, denticulated, as are also the grinders.

## ORDER IV. — INSECTIVORA.

*Insectis vescens atque vitam nocturnam degens.* Insectivorous animals. Mammæ in ventre. Like the cheiroptera, they have the grinders rough with conical points; way of living nocturnal or subterranean; feed chiefly upon insects, and in cold countries pass the winter in a state of torpor. They have not, like the bats, a lateral membrane. The feet are short and feeble; teats placed under the belly; penis in a furrow; no cæcum; and all have the heel placed upon the ground in walking.

Group 1. *Insectis vescentium dentibus caninis quam cæteris brevioribus.*

Two medial incisors, long; lateral incisors and canine teeth shorter than the grinders, by which they, like the tarsiers, approach the rodentia.

Gen. 1. *Erinaceus*.—*Corpore aculeos pro pilis nabente.* Hedgehog. Body covered with spines instead of hairs; the skin is so provided with muscles as to enable the animal to roll itself up into a ball, and present nothing but spines to its enemy; tail is short; feet with five toes. The two mean incisors are cylindrical.

Common hedgehog. *Erinaceus Europæus* of Linné.

Long-eared hedgehog. *Erinaceus auritus*; smaller than the common species; ears large as twice the head. Egypt and the Caspian.

Gen. 2. *Sorex*.—*Ab utroque latere setis olentibus.* Shrew. Much smaller than the hedgehog. On each side we find under the skin a small band of setæ; when these are pressed inside, an odorous humor is secreted by a peculiar gland. They have two superior massive teeth, hooked and toothed at the base. They live in holes of the earth.

Common shrew. *Sorex araneus*. *Sorex fodiens*. Black above, white below; tail square, long as the body. The ear can be hermetically closed by means of three valves which are the adaptations of the helix, tragus, and the antitragus. Red cilæ or lashes, which border the feet, assist the swimming of this animal.

Gen. 3. *Mygale*.—*Sorex nasu vibrante.* The musk rats of Cuvier. Differ from the shrew by having very small teeth placed between the large incisors below, and the incisors above, flattened and in the shape of a triangle. The muzzle is lengthened into a small proboscis very flexible, which they agitate without ceasing. Their tail is long, scaly, and flattened upon the sides. Their feet have five toes, which are connected by a membrane to qualify them for an aquatic life; eyes small; no external ears.

Common musk-rat. *Sorex moschatus*.

Gen. 4. *Scalops* of Cuvier.—*Sorex manu talparum.* These animals add to the teeth of a muskrat, and the pointed nose of a shrew, the hands of the mole; their mode of living the same. There is only one species known.

*Sorex aquaticus* of Linné. Canada: spread over a large portion of North America, near the brinks of rivers.

Gen. 5. *Chrysochloris* of Lacep. *Sorex nasu curto peditusque aute tribus unguibus.* They have, like the preceding genera, a pair of incisors above, and four below. Their fore-feet have only three nails, of which the exterior is very thick, and the others go on diminishing. Those behind have five nails. Subterranean animals, which have the forearm supported by a third bone under the cubitus.

*Talpa Asiatica* of Linné. Smallest of moles, without any apparent tail. The only quadruped that presents that changeful variety of shades and lustres, which is so brilliant in some of the birds and fishes.

Group 2. *Insectis vesentes: dentibus caninis magnis dispersitisque.*

They have four large wide canine teeth, between which there lie small incisive teeth. The more ordinary disposition among the quadrupeds and carnivora.

Gen. 1. *Centenes* of Illiger.—*Erinaceus dentibus diversis.* The tenrecs of Cuvier. They have the body covered with spines like the hedgehogs; but, besides the great difference in their teeth, they want the power of rolling themselves up so completely into a ball. No tail; muzzle very pointed. Natives of Madagascar. One of the three known species has been naturalised in France. Nocturnal animals. Spend three months of the year in sleep.

The tenrec; *erinaceus ecaudatus*. Covered with stiff prickles; incisors notched; four below.

The tendrac; *erinaceus setosus*. Prickles more flexible, resembling hairs; six incisors in each jaw.

Rayed tenrec; *erinaceus semispinosus*. Covered with hairs, mingled with prickles, varied with yellow and black.

Gen. 2. *Talpa* of Linné.—*Palmis maximis.* The mole. Arm very short, attached to a strong shoulder blade, supported by a stout clavicle, and fortified with very large muscles, bearing an extremely large hand, of which the palm is always turned outward. The fingers are not easily distinguished, but the nails which terminate them are strong and cutting. The sternum has, like that of birds and bats, a ridge, which gives the pectoral muscles an amplitude suited to the nature of their office. To assist them in penetrating the earth, the nose, terminating a long head, is furnished with a particular bone, of which the cervical muscles are very stout; having delicate awning to a large tympanum; no external ears.

Common mole. *Talpa Europæa* of Linné. Star-muzzled mole of Canada.

*Talpa cristata*, *sorex cristatus* of Linné, has the nostrils surrounded with small cartilaginous moveable points, which in their disposition resemble a star when spread out.

## Series CARNIVORA PROPRIA.

*Feræ molaribus præcipue ad lacerandum aptis.* Most of the preceding series though their grinders be furnished with points, yet from their weakness are obliged to feed upon insects. But the present series feel a sanguinary appetite joined to a force sufficient to gratify it. They have always four strong distinct canine teeth, between which are placed six incisors in each jaw, of which the second in the lower jaw has always its root

drawn more backward than the rest. Grinders always cutting or crowned with flat tubercles, and never roughened with conical points. These animals are by so much exclusively carnivorous as their grinders are completely cutting; and we may calculate what proportion animal food bears to the sum of their diet by considering what ratio the tuberculous surface bears to the surface of all the teeth jointly.

#### ORDER V.—PLANTIGRADA.

*Feræ plantis innixæ sese erigentes.* Animals which in their natural gait rest the whole of the heel upon the ground, and therefore support the body in an erect attitude. They partake of the slowness and nocturnal life of the insectivorous order; destitute of a cæcum.

Gen. 1. *Ursus* of Linné.—*Ursus caudâ curtâ.* Bears. They have three molar teeth on each side in either jaw; but, notwithstanding their extreme force, they scarcely ever feed upon flesh, except when compelled by necessity.

Brown bear of Europe, *ursus arctos* of Linné.

Black bear of America, *ursus Americanus*, has the hair black and smooth; forehead flattened, muzzle of a fawn color.

White bear, *ursus maritimus* of Linné. A distinct species in having its head flattened and elongated, and by its hair being white and smooth.

Gen. 2. *Procyon* of Storr.—*Ursi cordâ longâ.* *Katon.* Hind molar teeth tuberculous; three small grinders pointed before, which form a continuous series with the canine. Tail long. May be looked upon as a bear in miniature. They support themselves upon the whole of the sole when they stop, and in progression elevate the heel.

*Ursus lotor* of Linné. Gray-brown, with a white snout and a white stroke across the eyes; tail rayed with brown and white. About the size of a badger.

*Raton, ursus canoriore.* Clear ash-brown, uniform, rays of the tail less marked. North America.

Gen. 3. *Nasua* of Storr.—*Ursi nasu producto.* Coati. These animals unite the tail and the dawning gait and the nocturnal life of rats with a nose of singular elongation and mobility.

The brown coati. *Viverra nasua* of Linné. Brown; with white spots about the eyes and muzzle.

Gen. 4. *Cercoleptes* of Illiger.—*Ursi caudâ occupante.* Pottos of Cuvier. Add to the plantigrade progression of the bears the long prehensile tails of the sapajous.

*Viverra caudivolvula.* Warm parts of America and the Antilles, where they are called pottos, about the size of a pole-cat; hair woolly; gray or yellow brown; manner of life nocturnal; disposition mild; feed on fruit, honey, milk, blood, &c.

Gen. 5. *Meles* of Storr.—*Ursi digitis sub cute latentibus.* Badgers. They have one very small tooth behind the canine, and then two molar with points succeeded by one which begins to be recognised for a mere flesh tooth by some traces of cutting, which exhibit themselves upon the internal edge; behind this comes a square tuberculous tooth, which is the largest of all; below the penultima begins also to show some similitude to the inferior flesh teeth, but its internal edge has two tubercles elevated and one cutting; it possesses the number of tuberculous teeth.

Gen. 6. *Gulo* of Storr.—*Ursi molaribus, ad la-*

*cerandum aptis.* The gluttons. They approximate the martins in the nature of their teeth and disposition, and the bears in their plantigrade progression. They have false grinders above and four below before the flesh tooth, and a small tooth behind it of which the upper is broader than long. The upper flesh tooth has but one tubercle. Tail of a moderate size, with a fold underneath in the room of a pouch. They resemble the badgers in their mien and attitudes.

Glutton of the north, or the rosomak. *Ursus gulo* of Linné.

*Ursus luscus.* North America.

The grisson, *viverra vittata.* Black; the upper part of the head and neck gray; a white band running from the forehead to the shoulders.

The tairu; *mustela barbara.* Brown; the upper part of the head gray; a large white spot upon the throat.

#### ORDER VI.—DIGITIGRADA.

*Feræ molaribus ad lacerandum aptis.*

##### Group 1. *Pedibus curtis.*

They have a tuberculous tooth behind the flesh tooth above. They have been denominated long-bodied on account of the shortness of their legs and the length of the body, which allow them to pass through the smallest openings. They are deprived of a cæcum; do not spend the winter in sleep. Although they be small and feeble, they are very cruel and live upon blood.

Gen. 1. *Putorius* of Cuvier.—*Mustelæ rostro brevior.* Weasels. The weasels are the most sanguinary of their kindred; the flesh tooth below is without the inner tubercle. Tuberculous tooth above is broader than long; they have but two false grinders above and three below. They are known externally by a snout shorter and thicker than that of the martins.

*Mustela putorius.* Polecat, or fitchet.

*M. vulgaris,* common weasel.

*M. erminea.*

*M. sibirica.*

Gen. 2. *Mustela* of Cuvier.—Martins. Differ from the weasels by a false grinder above and below, and by having a small tubercle on the inside of their flesh tooth below, two characters which somewhat diminish the cruelty of their nature.

Common martin, *mustela martes* of Linné.

Fitchet, *M. fima.*

The sable, *M. zibellina.*

Gen. 3. *Mephitis* of Cuvier.—*Mustela maxime olentes.* They have, like the polecats, two false grinders above and below, but their upper tuberculous tooth is very large, and as long as it is broad, by which mark they approximate to the badgers as the polecats approximate to the grissons and gluttons. (An analogy:—*Mephitis*: *putorius* :: *meles*: *gulo*; or, by inversion, *mephitis*: *meles* :: *pectorius*: *gulo*.) In other respects the mephitis resemble the badgers. Nails of the fore feet long and proper for digging. Among a kindred of animals remarkable for exhaling a disagreeable scent, the mephitis is most remarkable for diffusing a most offensive odor.

Gen. 4. *Lutra* of Storr.—*Mustelæ pedibus ad natandum idoneis.* Otters. These have three false molar teeth above and below; a strong stem; inferior flesh-tooth with a tubercle at the inner edge.



a large tuberculous almost as long as wide above. The head is compressed, and the tongue somewhat rough. Distinguished from the rest of its kindred by having palmated feet, and a tail flattened horizontally.

Common otter, *mustella lutra* of Linné.

Sea otter, *M. lutris* of Linné.

Group 2. *Feræ molaribus ad lacerandum aptiores.*

This second subdivision of digitigrade animals have the two tubercles flattened behind the upper flesh tooth, which has a wide stem. They are feeders on flesh, without showing any courage proportioned to their strength, but live upon dead carcasses. They all have a small cæcum.

Gen. *Canis* of Linné.—The dog. Have three molar teeth above and four below, a tuberculous tooth behind each flesh tooth. Their first upper tuberculous is very large, and the flesh tooth above has but one small tubercle within. But the lower one has its backward edge quite tuberculous; tongue soft; fore feet with five toes, hind with only four.

Common dog, *canis familiaris*.

Wolf, *C. lupus*.

Black wolf, *C. lycaon*.

Red wolf, *C. Mexicanus*.

Jackall, *C. aureus*.

Common fox, *C. vulpes*.

Small yellow fox, *C. corsac* of Gmelin. Pale yellow gray; sometimes with black upon the base of the tail; tip black. Common in Asia.

Three colored fox, *C. cinereo argenteus*.

Blue fox, *C. lagopus*.

*Viverræ.*

Lingua horrida gradiendo unguibus sese atolentibus. Three false molar teeth above, four below, of which the first sometimes falls out. Two tuberculous teeth very large above; one only below; tubercles jutting at the inner edge of the inferior flesh tooth, while the rest of the tooth is more or less tuberculous. Their tongue is bristled with sharp and rough papillæ. Their nails half elevate themselves in walking; near their anus is a pouch, where appropriate glands secrete a peculiar humor.

Gen. 1. *Viverra* of Cuvier.—*Mustelæ specu duplicis sub ano unguentum sudante*. Civets proper. Pouch deep; situated between the anus and the organs of generation, and is divided into two sacs which are replete with a copious unguentum of a strong musky odor.

The civet, *viverra civetta* of Linné. Gray; with a brown or black spot; tail brown, shorter than the body; whole length of the back and tail crested with a mane that can be elevated at the pleasure of the animal.

Zibet; *viverra zibetha* of Linné. Gray, clouded with brown; tail long, ringed with black.

Gen. 2. *Genetta* of Cuvier.—*Mustelæ specu haud manifeste sudante*. The genetis. Pouch reduced to a single slight depression formed by the jutting forth of the glands, and almost without sensible excretion, although it has the odor very manifest.

Common genet; *viverra genetha* of Linné. Gray, with small round black spots, with a tail ringed, streaked with black.

*Viverra fossa* of Buffon. Fawn where the genet has black; almost without rings upon the tail.

Gen. 3. *Herpestes* of Illiger.—*Mustelæ specu amplissima anum foveate*. Mangonolis of Cuvier.

The ichneumon. Has a simple but very capacious pouch, at the bottom of which is found the anus.

Common ichneumon of Egypt; *viverra ichneumon* of Linné. Gray; with a long tail terminated by a lock of hair; larger than our cats; fringed like the martins.

Ichneumon of the Indies; *viverra mongos*.

Cape ichneumon. *V. cafra*. Both have the tail pointed and the hair gray or brown, uniform in the latter, striped with black in the former.

Gen. 4. *Rhyzana* of Illiger.—*Mustelæ quaternis digitis ex pedibus anterioribus*. The suricates. The resemble in some particulars the ichneumons, and borrow of them the tints and transverse stripings of the pile; but what discriminates them from all the carnivorous animals already described consists in having only four toes upon their fore feet.

Group 3. *Feræ molaribus ad lacerandum optissimis.*

These have no small teeth behind the thick molar teeth. This subdivision comprehends creatures of the most cruel and voracious of this order.

Gen. 1. *Hyæna* of Storr.—*Canis specu sub ano*. The hyænas. They have three false molar teeth above and four below, all flat and conical and remarkably large: their upper flesh tooth has a small tubercle within and before, but the lower one wants it, and presents only two strong cutting points: this stout armature enables them to break the strongest bones of their prey. Tongue rough; all their feet have four toes like the suricates, and under the anus there is a deep and glandulous pouch. Way of life nocturnal, voracious, and among the graves in search of dead carcasses, their favorite diet.

Striped hyæna; *canis hyæna* of Linné.

Spotted hyæna; *C. crocata* of Linné.

Gen. 2. *Felis* of Linné.—*Ungues molliter reponentes*. Cats. They are of all the carnivorous animals the most strongly armed: the muzzle is short and round; grinders short. The chief character of discrimination is the faculty of withdrawing their claws through the office of certain elastic ligaments; and thus, by sheathing them from injury, keep them sharp and ready to gripe their prey. They have two false molar teeth above and two below; their upper flesh tooth has on the inside three hollows and a flat stem, the lower two are pointed and cutting without any stem; they have only a very small tuberculous upper tooth, without any thing to correspond to it below.

The lion, *felis leo*: tail terminating in a tuft of hair.

The tiger, *F. tigris*.

The jaguar or once, *F. onça*: black ocellated spots.

The panther, *F. pavetus*: black clustering spots.

The leopard, *F. leopardus*: small spots.

The hunting leopard, *F. jubata*: hair of the neck longer, and of a deeper dye than the rest of the body.

The puma, *F. discolor*: red, with small spots of a deeper hue.

The ocelot, *F. pardalis*: gray black margined, tawny spots disposed in oblique bands.

The black panther, *F. melas*: black spotted with a deeper tinge.

The lynx, *F. lynx*: tawny, spotted with black.

Canada lynx, *F. canadensis* of Geoffroy: whitish gray with a few spots.

Furrias cat, *F. rufa* of Gûld: tawny, red tinged with brown.

Lynx of the marches, *F. caracal*: vinous red.

Serval, *F. serval*: yellow black spots.

Jaquarondi, *Azz.*

Common cat, *F. catus*: gray brown, waves of a deeper color.

ORDER VII.—AMPHIBIA.

*Feræ corpore atque membris ad natandum natura comparatis.* Amphibious animals form the third and last of the families into which Cuvier divides the carnivora; they have the feet short and generally enveloped in the skin, which therefore cannot on land serve them for instruments of progression; but, as the intervals between the toes are filled by membranes, they answer well the purpose of oars in swimming. Body elongated; spine very moveable, and provided with muscles that turn with great force. These creatures do not come to shore, except for the sake of basking in the sun. The abdominal basin is narrow. The hairs sleek and depressed close to the skin, indicating that they are good swimmers, which all the particularities of their anatomy confirm.

Group 1. *Phoca* of Linné.

From four to six cutting teeth above, four below; canine pointed grinders twenty-two or twenty-four, all cutting or conical without having any part tuberculous; five toes on each foot. *Phocæ sine auribus externis.*

Gen. 1. *Phoca* of Linné.—Common seal. Gray yellow, more or less spotted or waved with brown, according to the age, becoming white by age.

*Phoca Greenlandica*: gray yellow, spotted with brown when young.

*P. monachus*: brown black, belly white. Mediterranean.

*P. leonina*: twenty-five feet long, brown muzzle terminated by a wrinkled trumpet, which it inflates when angry.

*P. cristata* of Gmelin: seven feet long, with a sort of moveable hood up the crown of its head.

Gen. 2. *Oterites* of Peron. *Auribus externis.* Four cutting teeth above, mean with a double edge, exterior simple and smaller, four below forked; all the grinders are simply conical.

*Phoca jubata* of Gmelin. Sea lion. Fifteen feet long and upwards; tawny; the neck of the male clothed with hairs longer and more crisped than those which cover the body. Pacific Ocean.

*Phoca ursina*: seven feet in length, with a mane varying from brown to white. Pacific Ocean.

Group 2. *Trichecus*. Walrus of Linné.

These resemble the phocæ in their limbs and in the general form of the body; but differ very much in their teeth; lower jaw wants the canine teeth, and adopts a size and a compressed form to adapt itself to the monstrous canine teeth, or tusks, which confine it on each side. These tusks derive their origin from the upper jaw, and point downwards sometimes to the length of six feet, and are of proportionate thickness. The magnitude of the alveolæ necessary for the lodgment of them elevates the whole front of the upper jaw, and form an inflated muzzle; in consequence the nostrils take a vertical direction upwards, and do not terminate at the snout, as in some other animals. Grinders short and truncated obliquely.

Walrus. *Trichecus rosmarinus*. In a paper read before the Royal Society on the 24th of March, 1821, Sir E. Home deemed that he had

discovered a faculty in the hind flipper of the walrus analogous to that in the foot of a fly; which, by the contractility of the margin, forms itself into a cup when the pressure is lightened, and thence, by creating a vacuum, enables the insect to resist the force of gravity. But the flippers which were examined on board the Blossom seemed too full of protuberances to admit the supposition of a vacuum, which, when they were submitted to that able comparative anatomist, they had lost by the operation of the saline pickle. The writer remembers that his fisherman at Oahu once brought him a goby which the honest fellow had sprinkled with salt to keep it from decaying. Upon examining the fish the flat fin, formed by the union of the two abdominal fins, appeared so much like a cup that he asked the fellow if the fish was in the habit of adhering to stones at the bottom of the streams: the answer was 'No; and I am surprised that a person of much sagacity should not be better acquainted with the usual effects of salt.'

ORDER VIII.—MARSUPIALIA.

*Feræ utero vicario.* A family, says Cuvier, embracing many orders. The most prominent characteristic is the premature production of their young ones, in a state of development hardly comparable to that which fetuses reach a few days after conception. Incapable of movement, and with scarcely the rudiments of limbs or external organs, the little ones attach themselves to the paps of their dams and remain fixed in that position till their form is unfolded in a degree corresponding to that of other animals when they forsake the womb of their mother. Almost the whole of the skin of the abdomen is disposed in shape of a funnel, around the teats, wherein the immature embryo is preserved as in a second matrix, and which even affords a place of shelter when danger threatens. Two bones attached to the pelvis, and interposed between the muscles of the abdomen, afford support to this pouch; they are found, however, in moles where the folds which form the pouch are hardly perceptible. The matrix of the animals pertaining to this order has not only an opening by an orifice in the bottom of the vagina, but it communicates with this canal by two lateral tubes resembling handles. It would seem, that the premature birth of the young ones is owing to this singular organisation. The males have the scrotum before the penis. Two young ones may be seen preserved in spirits in the museum of the Hasler Hospital, with the paps of their dam to which they are attached.

Family 1. *PEDIMANA.*

*Dentibus horridis cum pollice qui ad manum apponi potest.* Canine teeth long, incisors small, hind molar teeth rough with points; way of life carnivorous; thumb applicable.

Gen. 1. *Didelphis* of Linné.—*Auribus maximis, cauda occupante.* Opossum. Six incisors above, whereof the mean are a little longer than the rest; seven below; three anterior grinders compressed; the four hind ones rough with points; upper ones irregular; lower oblong; in all fifty. Tongue bristled; tail prehensile and partly naked. Mouth very wide and large naked ears give them a peculiar physiognomy. Smell offensive; nocturnal; motion slow; rest on trees; pursue birds, small quadrupeds, insects, &c., not disdaining fruit. Cæcum muddling size without swellings.



*Didelphis Virginiana.*

- D. marsupialis.*
- D. cancrivora.*
- D. opossum.*
- D. cayopolina.*
- D. philander.*
- D. dorsigera.*
- D. murina.*
- D. brachyoura.*
- D. palmata.*

Gen. 2. *Dasurus* of Geoffroy.—Pollice nascente cauda non occupante. Two incisors and four grinders at least in each jaw, like the opossums, and four teeth in all; tail clothed with long hair; not prehensile; thumb behind very much shorter and like a tubercle. Found in New Holland; live on carcases, insects; enter houses, where their voracity is very troublesome.

*Didelphis syncephale* of Harris. About the size of a dog.

*D. ursina.* Long black thick hairs, with some spots.

*Dasurus macrurus* of Geoffroy. Van Dieman's Land. Large as a martin; tail long as the body; brown spotted.

*D. arne de mange.*

*D. viverra* of Shaw.

Gen. 3. *Parameles* of Geoffroy.—*Thylacis* of Illiger. Hind thumb short, like the *dasuri*, and the two fingers which follow united by the skin as far as the nails; the thumb and little toe before are simply tubercles. The upper incisors are ten in number, of which the external are sharp and spreading, but only nine in the lower jaw; grinders similar to those of the opossums. All their teeth when reckoned amount to forty. The tail is clothed with hair and not prehensile. They inhabit Australasia; and their large and almost straight nails bespeak their use in forming burrows in the earth; their hind feet are very long to augment their speed. Long nosed.

*Parameles nasutus* of Gmelin. With a very long nose and pointed ears, and a hairy covering of gray brown. It resembles a tenrec at first sight.

## Familia 2. DIGITIS DUOBUS QUASI INVOLUCRO COOPERITIS.

The second family of the marsupial animals bear in their lower jaw two long and large incisive teeth, sharp and cutting at their edge, bowed outwards, to which correspond six in the upper jaw. The canine teeth in the upper jaw are also long and pointed; but in the lower these teeth become so inconsiderable as to be sometimes hidden by the gum; some of the genera are entirely destitute of them. Their food in a great measure consists in fruit; and their intestines and even the cœcum are longer than those of the opossums. They all possess one large thumb or great toe, generally so far separated from the rest as to appear directed backwards, like the corresponding claw in birds. These great toes are without nails, and two of the neighbouring toes are mutually joined by the skin as far as the last phalangeal bone. This structure has lent them the name of phalangista.

Gen 1. *Phalangista* of Cuvier.—Cauda occupante. Phalangiers proper. They have not the skin of the flanks extended into wings. In each jaw there are found four molar teeth in each side backwards, which present four points respectively, and by this means, when viewed together, form two ranks of

points. A large compressed conical tooth before; between this and the canine teeth in the upper jaw are two small pointed teeth which correspond above to the minute teeth before-mentioned. Their tail is prehensile. Some of them are scaly. These animals inhabit the Moluccas, where they live upon trees, and search for insects and fruits; when they see a man they suspend themselves by the tail, and continue fixed in this position till they drop down with fatigue. They diffuse a very disagreeable odor; nevertheless their flesh is sometimes eaten. They are recognised by their light; gray spotted with black, red with gray, brown the whole length of the back, and a white rump; but the species have not been sufficiently discriminated, but have generally been comprehended under the denomination of *dedelphis* orientalis.

*Phalanger didelphis lemurina et vulpina* of Shaw. As large as a cat; of a gray-brown color, pale underneath; tail black.

The phalanger of Cook. Less than a cat, gray-red, white beneath, red on the flanks, a space of white near the end of the tail.

Gen. 2. *Petaurus* of Shaw.—Cute laterum in alas explicata. Flying phalangiers. Have the skin of the sides more or less extended between the legs, like the palatouches among the rodentia, which gives them the power of supporting themselves a few moments in the air, and of taking more distant leaps. Natives of New Holland. Some of the species have the canine teeth below, but they are very small; the upper canine teeth, and the three first grinders above as well as below, are short, and the hindmost molar teeth are armed with points.

Dwarf-flying phalanger. *Didelphis pygmaea* of Shaw. Mouse-color, and nearly of that size; hairs of the tail disposed in a regular series, like the vane of a feather; wants the lower canine teeth, and the upper are very small; they have four hind molar teeth, presenting four points respectively, but somewhat lower and crossing each other; this is the form in ruminant animals; the anterior pair above, and the one below, are more complicated. This structure renders this genus more particularly frugivorous than any of the foregoing.

The large flying phalanger. *Phalanger* of Shaw. Resemble the flying cats in the size of the body; the fur is soft and copious, and its tail is long and flattened. They have divers shades of brown, some are variegated and very lack.

Long-tailed flying phalanger. *Didelphis macroura*. Deep brown above, white below; tail about half as long again as the body.

### Group. 1. *Caninis inferioribus nullis.*

This group has the upper incisive and the canine teeth; and two toes in the hind feet united as in the second group, but they want the hind thumbs, and the inferior canine teeth.

Gen. 1. *Myorthius* of Lay.—Canino superiore dumtaxat uno. The kangaroo rats. The smallest animals of this order which exhibit any relationship to the carnivora in their general character. Their teeth are nearly the same as in the phalangiers; they have also a sharp canine tooth above; the two mean incisors in the upper jaw are longer than the rest; in the lower jaw there are only two, which are bowed outwards; they have one anterior molar tooth, long, cutting, and denticulated, succeeded by four that are rough with four flat tubercles. But what distinguishes these animals from the preceding genera of this family is the disproportioned length of the

hind feet; these have the great toe united, and the two next united as far as the nail, in such a manner that we seem at first sight to see only two toes, of which the inner has two nails. These animals walk upon two feet; and by the help of their tail, which is long and stout, maintain themselves in an erect position; in form and habit they resemble the kangaroos, from which they differ in having a canine tooth in the upper jaw. Their food is frugivorous; they possess one large stomach divided into pouches, and garnished about with enlargements; cæcum of a moderate size and round. We are acquainted with only one species, which is about the size of a rabbit, and of a mouse color, whence they have been called kangaroo rats. Natives of New Holland: the aborigines call them Potoroo.

*Group. 2. Canino nullo.*

This group differs from the third only in the absence of canine teeth.

Gen. *Macropus* of Shaw.—The kangaroos. These exhibit all the characters which we have assigned to the kangaroo rats, except in the aforementioned canine tooth in the upper jaw, and in their mean incisors not being separated at a distance from each other. The inequality of the legs is still greater, so that they cannot walk upon four feet but with pain and difficulty, but spring upon the hind feet with great force. The thick nail upon the middle toe behind, which nearly resembles a hoof, serves them for a defence, as they can rest their weight upon one leg and their enormous tail, and give a violent blow with the free foot. In other respects they are animals of a mild disposition, and live in flocks. Their grinders present nothing but small risings. There are five, but the anterior often falls out by age, which makes them seem to have only three. The stomach is shaped like a long pouch, divided into two enlargements, like the colon; cæcum is large and swollen; radius allow the forearm a complete rotation.

Great kangaroo. *Macropus. Didelphis gigantea*. Sometimes attains the height of six feet, and is the largest animal in New Holland: first discovered by Cook, and now propagated in Europe. It is said that the flesh resembles that of a deer. Their young ones at their birth have but one thumb, and retreat to the pouch of the dam, till age has fitted them for sustaining themselves. It is by thrusting their muzzles out of the pouch that they receive the food from her. They live in herds under the conduct of the old males; they take exceedingly long leaps; it would seem that many species are confounded under this name. Color gray with lighter shades.

Elegant kangaroo. *Macropus elegans*. About the size of a hare, light-gray, striped with brown across the body. From St. Peter's Island.

Kangaroo d'Arve. *Didelphis brunii* of Gmelin, called philander d'Arve or lapin d'Arve, by the inhabitants of Amboyna; but the naturalists of Europe have not paid sufficient attention to the description which Valentine and Bruyn have given. About the size of a hare; brown above, tawny beneath; it is found in the island of Arol near Banden, and in the island of Salor, and has long been known to the students of natural history.

*Group. 3. Pare incisorum infra.*

Has the lower jaw with two long incisors, but without canine teeth; the upper jaw has the middle incisor long, and some small ones on each side, with the canine teeth.

Gen. *Draximenus*.—*Sine caudâ*. Koala. Has

the body short and thick, without any tail; four toes before divided into two separate pairs; the thumb and the index in one pair, and the rest in the other; this conformation renders their forefeet very proper for seizing and grasping; hind foot destitute of the thumb, next toes to it united like the preceding group. We are acquainted with only one species, the hair of which is of an ash color. This animal passes one half of its life upon trees, and the other burrows which it hollows with its foot; the dam carries her young one a long time upon her back.

*Group 4. Dentibus glirium.*

Gen. *Phascolomys* of Geoffroy.—If we regard the teeth and intestines we must place these animals among the rodentia, but the articulation of the lower jaw permits us to assign them to the carnivora, which we choose to do, because we have been led to them by descending in an uninterrupted series from the didelphis to the phascolomys. Besides the male organs of generation have a perfect similarity to those of the marsupial animals. They are stupid creatures; their head is flat and their legs short; body loose and without tail; forefeet with five nails, and four with a small tubercle in place of a great toe behind; all fitted for burrowing in the earth. Rate of progression excessively slow. Two incisive teeth in each jaw, long, and nearly equal to those of the rodentia; the grinders have each two risings across their surface; feed upon herbs; stomach shaped like a pear; cæcum short and thick, furnished as in man with a vermiform appendage; male organ of generation forked, as in the opossums. One species only known, about the size of a badger; hair copious, of a color more or less yellow. From King's Island, south of New Holland. Live in burrows. Propagate among us. The flesh is reputed to be excellent.

*Didelphis ursina. Wombat.*

ORDER IX.—RODENTIA.

Rodentia, to which we are come from a contemplation of the phalangers, in which the canine teeth were so small that they might have been accounted as nothing; and the food, consisting entirely of vegetables, seemed in reference to economy to separate them completely from the carnivora. Their intestines we observed to be long, and their cæcum ample. In the kangaroos we noticed the total absence of canine teeth, and a diet like the phalangers. We might, indeed, have begun with the phascolomys, but since we found it expedient, in an arrangement, to fix the vanishing points somewhere, we could not do this without encroaching upon the precincts of what we laid down to be the chief and unvarying characteristic of the carnivorous order, namely, the hinge-like articulation of the lower jaw. The rodentia have two large incisors in each jaw separated from the grinder by a void space; they cannot, therefore, easily seize their prey, nor tear flesh, neither cut the food, but only by continued labor reduce it to very small particles, or, in one word, gnaw it. Whence a verbal noun derived from *rodo*, alluding to the peculiarity above-mentioned, becomes a very appropriate denomination for an order of animals, which, since their business and pleasure seem to consist in gnawing, may, in an eminent manner, be called animalia rodentia. In this way they will attack the hardest substances, and oftentimes nourish themselves on wood and bark; for



the better fulfilment of this purpose the incisors have no enamel but on the forepart, so that their posterior edge, wearing faster than the anterior, they always appear slanting upwards. We cannot forbear calling the attention of the reader aside to admire the simple process which nature has contrived for keeping these teeth always sharp. To preserve this prismatic form, an increase at the roots is necessary corresponding to the quantity worn away by attrition, which is so considerable, that, if one of them chance to be lost or fall out, the one opposite, having nothing to wear it down, is developed so much as to become monstrous, and will, if the animal be kept alive by the introduction of food into its mouth, through the opening left between the incisors and grinders, nail the lower jaw to the upper. The lower jaw is articulated by a longitudinal condyle, so as to be capable of a horizontal motion, backwards and forwards, to suit the action of gnawing; the molar teeth are crowned with plates, of which the eminences of enamel are always alternate, in order that they may be in opposition to the horizontal motion of the lower jaw. The genera in which these eminences are in simple lines, and where the crown is plane, are exclusively frugivorous; those in which the eminences are replaced by flat tubercles are omnivorous, but those animals of this order which are furnished with grinders, and armed with a few points, attack other animals more readily and approximate to the carnivora. The form of the body is such as to make the hind parts preponderate, hence it comes to pass that in progression they leap rather than walk. This conformation, in some of the genera, is found as excessive as it appears in the kangaroos. The intestines of the rodentia are very long, stomach simple, or somewhat divided; the cæcum is sometimes more voluminous than the stomach, nevertheless in the genus *musoreus* this intestine is wanted. In the whole of this order the brain is almost smooth and without convolutions; the orbits are not separated from the temporal fosses, which have some depth; the eyes have a lateral direction; the zygomatic arches, being thin and bent down, indicate the weakness of their jaws; the fore-arm is susceptible of a rotatory motion, and the two bones are often united into one. Finally, the inferiority of these animals betrays itself in almost all the details of their organisation, though the major part of the genera have strong clavicles, enjoy a certain hability of address, and make use of the fore-paws in applying the food to their mouths.

#### Division I.—CLAVICULIS PERFECTIS.

Gen. *Castor* of Linné.—*Caudâ planâ, rotundâ ambitu, squamis, que abducta.* The beaver is distinguished from all the rest of the rodentia by its tail, which is flattened horizontally, almost of an oval form and covered with scales. Five toes on each foot, those behind united by membranes, the one next the great toe has a double nail placed in an oblique direction. Grinders, in number four, having the appearance of a riband folded upon itself in such wise that they seem one notch on the inside and three on the outside in the upper jaw, but inversely in the lowest.

*Castor fibra*, common beaver. All the rodentia are provided with clavicles which cannot be discriminated by any external sensible mark, nor do the long incisive teeth in the lower jaw always furnish the naturalist with unvarying and well-defined

differences for distinction. But we must, for the sake of a perspicuous order, separate, as we do, the mole-rats and the *helamys* or jumper; the others allow themselves to be divided by the grinders.

#### Subdivision 1. *Molares ex lamina structe.*

Those which have their molar teeth prismatic and formed by the repeated superposition of enamel plates; a sort of structure which we find in the hares and even in the elephants.

Meadow mice; *mures auricolæ*. All the known ones have three grinders throughout, each formed of five or six and sometimes seven triangular prisms ranged alternately in lines.

Gen. 1. *Fiber* of Cuvier.—*Caudâ longa atque compressâ.* *Ondatras*. Field mouse, with palmated feet and long compressed tail covered with scales. Only one species known.

Musk rat of Canada. *Castor Tibeticus*. *Mus zebeticus* of Gmelin.

Gen. 2. *Hypudeus* of Illiger.—*Arvicola* of Lacépède. *Caudâ pilis vestitâ.* Common field mouse. Tail clothed, nearly as long as the body

*Mus amphibius*, water-rat.

*M. arvalis* of Linné. About the size of a common mouse, tail somewhat shorter than the body.

*M. œconomus*, or economic mouse of Pallas.

Gen. 3. *Georychus* of Illiger.—Lemmings of Cuvier. *Caudâ auribusque curtissimis.* Tail and ears very short; toes before peculiarly adapted for burrowing. The following species have five nails very distinct upon the forefoot.

Lemming. *Mus lemmus* of Linné.

Tocor. *Mus appalax* of Gmelin.

Lemming of Hudson's Bay. *Mus Hudsonius*.

#### Subdivision 2. *Molares radicibus manifestis.*

Rats grinders, which divide themselves at the base into roots, but the flat crown presents the transverse lines of increase. Frugivorous.

Gen. *Loncherites* of Illiger.—*Pilis in spiculis tractuctis.* *Echemys* of Geoffroy. Has four grinders throughout, which present severally four transverse plates (in the lower jaw) united in pairs; in the upper jaw they present respectively three, of which two are united. They are American animals, with a shape nearly like mice, and lengthened as those of rats; hair very often flattened, enlarged, stiff, and terminating in a point.

Gilded tail. *C. echemys chrysurus*. *Hystrix chrysurus* of Schroeber.

*E. spinosus* of Azara. As large as a rat; tail shorter than the body. Found in Cayenne and Paraguay, subterranean woody burrows.

*Myoxus* of Gmelin, dormouse loir. Has also four grinders entirely divided by transverse bands, but their hair is soft and their tail clothed and tufted.

*Mus glis* of Linné. This is probably the rat which the ancients fattened, and of which they made their delicate dishes.

*M. nitila*. Le Levot.

*M. avellanarius*. The muscardine. Hairs of its tail plumose.

#### Subdivision 3. *Mures molaribus cum aliquot tuberculis.*

Rats, the grinders of which are more or less tuberculous, and which do not accurately exhibit the transverse furrows. They are more omnivorous than the others.

Gen. 1. *Hydromys* of Geoffroy.—*Digitis spatiosis cute junctis.* Distinguished at first sight from all

the rest by their hind feet being palmated two thirds; their grinders have a peculiar character in that they have the crown obliquely quadrangular or rhomboidal, which is hollowed in the middle like a spoon. Aquatic.

*Hydromys leucogaster* of Guiana. We are of opinion that we might refer hither an animal of which the skin comes to the central parts of Europe for the use of hatters. Its anatomical structure is not well examined.

Quoagu of Azarra. *Mus crypus* of Molina.

Gen. 2. *Mus* of Cuvier.—*Cauda longa squamis obiecta*. Rats, properly so called. Have three grinders in each side respectively, with flat tubercles, of which the fore one is larger than the rest; tail long and scaly. Species very numerous, too well known by their fecundity, and the havoc they make in our wardrobes and promptuaries.

Common mouse. *Mus musculus*.

Common rat. *M. rattus*, of which the ancients take no notice, and it appears to have penetrated into Europe in the last age. Cuvier.

Surmulot. *M. decumanus*. Arrived in Europe in the sixteenth century, and is now more common in Paris and in some other towns than the other species.

*M. caraco* of Palla. Tail somewhat shorter; grinders very strong, of a flaxen color; found in Tartary.

*M. cahirinus* of Geoffroy. Spines instead of hairs upon the back. It is mentioned by Aristotle.

*M. sylvaticus*. Hair red, in other respects differs not from the common house mice.

Gen. 3. *Cricetus* of Cuvier.—*Cauda brevi pilis vestita*. Hamsters. Teeth like those of the rats proper; tail short and clothed with hairs; in each side of their mouth there is a sac or cheek pouch, as in some of the ape and monkey tribes, in which they transport the grain that they hoard up in their subterraneous granaries.

*Mus cricetus* of Linnæus.

Gen. 4. *Dipus* of Gmelin.—*Pedibus posterioribus multo longioribus*. Gerboas. Possess the same sort of teeth as the rats; tail long and tufted at the end; head large and eyes prominent; hinder extremities far exceeding the anterior in the usual proportion: and hence, the fore feet vanishing in comparison of the hind ones, they have gained the name of *dipus* (two-footed). The fore feet have five toes; in the hind feet the metatarsus of the three middle toes is formed of only one bone, like that which we call the tarsus in birds.

Gerboa. *Mus sagitta*.

*M. jaculus*.

Gen. 5. *Spalax* of Gûld.—*Incisoribus exertis*. Mole-rats. They have the grinders like those of the rats, the hamsters, and the gerboas; but their incisors are too large to be covered by the lips; the ends of the lower pair crossing each other; not pointed; each foot has five toes, short, and with five flat thin nails; tail very short or wanting, as are also the external ears; live under ground; eyes of consequence very minute.

Zemni Hepez. *Mus typhlus*.

Gen. 6. *Bathyergus* of Illiger.—*Crypterus* of Fred. Cuvier. *Quaternis molaribus singulis locis cum sinu*. Mole-rats of the Cape. These animals have the shape, feet, and the truncated incisors of the preceding; but four of the grinders in each situation, and deeply notched at outer edge; the eye though small is visible; the tail is short.

*Mus maritimus* of Linné. Gray white, nearly as large as a rabbit.

*M. Capensis*, brown color; a spot about the eye, ear, and upon the crown of the head; tip of the snout white.

Gen. 7. *Helamys* of Fred. Cuvier.—*Pedatis of Illiger*. *Bipes incisoribus infra hebetibus*. This genus is related to the *dipus* by the large head and eyes, long tail, and the preponderance of the hind part when counterviewed with that before, though the disproportion be less than in the *gerboas*. In each situation there are four grinders, each composed of two plates; the fore feet have five toes, which are armed with very long pointed nails; hind feet with only four toes, which are very large and almost like hoofs. This disposition in the number of toes is inverse of that which takes place among the rats. Lower incisors truncated, and not sharpened like those of the *gerboa* and all the other animals enlisted among the rats, the mole-rats excepted.

Gen. 8. *Arctomys*.—*Molaribus horrentibus*. Marmot. Have the incisors in the lower jaw sharpened like the majority of animals comprehended in this subdivision; five grinders in each side above and below, all rough, with points; some of the species hence evince a disposition to eat flesh and feed upon insects as well as herbs. These creatures have short legs, a tail of a moderate size and long, covered with hair; head large and flattened.

*Mus alpinus*.

*M. babac*.

#### Group *Sciuri*.

*Pilis caudæ arrectis*. Squirrels. Tail conspicuous for the vane-like disposition of the hairs.

Gen. 1. *Sciurus*.—*Incisoribus infra valde compressis*. They have always been regarded as a distinct genus characterised by the compression of their lower incisors, and by the long tail clothed with dishevelled hairs. The thumb is sometimes reduced to a small tubercle; four grinders on each side above and below, tuberculous, with a small anterior grinder in the upper jaw, which easily falls out.

*Sciurus vulgaris*.

*S. cinereus*, *chinchilla*.

Masked squirrel, *S. capistratus* of Bosc.

Great Indian squirrel, *S. maximus et macrurus*.

Babaresque squirrel, *S. getulus*.

Sevisse squirrel, *S. striatus* of Linné.

Hudson Bay squirrel, *S. Hudsonius*.

Gen. 2. *Tamias*.—*Tamias, ταμιας*, a steward who portions out (*τεμενει*) the meat and lays it up in the larder, *ταμειον*. Ground-squirrel. Furnished with cheek-pouches; manner of life subterranean.

A mouse-colored species of this genus is very common in California, particularly about Monterey, where it generally selects some elevated or sunny situation for delving its subterraneous abode. It is a sprightly creature, often running in sportful visitation to the burrows of its neighbours; when a stranger approaches their haunts, they, all in obedience to the instinctive desire of self-preservation, retire precipitately to their holes; but if he continue motionless some time, the heads of the timorous animals will begin to emerge from their lodgments, and in the space of half an hour the whole body will have in this way made its progressive appearance; and, when they seem to have sufficiently ascertained that no harm is nigh them, they renew their sports and occupations as if un-



heeded by any one. The plumose floating tail associates them with the squirrels at first sight, though we must confess that the rest of their external form and color suggests a very great affinity to the rats, but the form of their teeth, and the presence of cheek-pouches, in which they stow their food while foraging, joined to a consideration of their economy, distinguishes them from the mus no less than from the sciurus. We cannot forbear considering these pouches on the ground of compensation as supplying the place of a rumen for holding the food till it has undergone a due mastication, and for the very same reason which is properly alleged for that organisation in the ruminantia, namely, that if the animal were obliged to chew the food as it was cropped, a too scanty portion of time would be allowed for repose. In countries where herbage is very sparingly scattered upon the ground during several months in the year, much time must be taken up in the search of food, which time the tamias being excused from the duty of chewing, at that time it is permitted to employ without interruption. Yarrow being one of the chief vegetable substances within reach at certain periods of the season of drought, some sprigs of it were found by the writer in one that was shot by his servant when in California in the year 1828.

Gen. 3. *Pteromys* of Cuvier.—Cute labrum in alas soluta. Polatouches. By having the skin of the flanks extended between the legs, they are enabled to support themselves a few seconds in the air; feet with long appendages, which hold part of this lateral membrane. Poland and Russia.

S. volans.

S. volucella of Buffon.

S. petamista of Tayman.

S. sagitta.

Gen. 4. *Cheiomys* of Cuvier.—Aye-aye of Geoffroy. The aye-aye has the lower incisors still more extended lengthwise, and more compressed than those of sciurus, so as to resemble a plough share. Each foot has five toes, four of which are very long, the middle is much thinner than the rest. In the hind feet the great toe may be applied to the rest, so that this animal bears the same relationship to the rodentia, that the sariques do among the carnivora.

S. Madagascariensis of Gmelin.

#### Division II.—CLAVICULIS NASCENTIBUS.

This division of the rodentia comprehends such genera as have only the rudiments of clavicles.

Gen. *Hystrix* of Linné.—Spiculi argutis pro pilis. Porcupine. Distinguished at first sight by its pointed quills. Four teeth in each side above and below, of a cylindrical form, and marked upon the crown with four or five deep impressures; five toes behind and four before, armed with thick nails.

H. cristata of Linné.

H. prehensilis.

H. fasciculata.

#### Family 1. LEPORES.

Incisoribus supra duplicibus. This family has the superior incisors double, that is, each of them is accompanied by a smaller one. Grinders are five in number, and are formed severally of two plates cemented together. We find in the upper jaw another, simple, and very small. There are five nails before and four behind. The cœcum is of an enormous size, being five or six times bigger than the stomach, and when the animal is laid open makes the most conspicuous figure among the contents of the abdomen.

Gen. 1. *Lepus* of Cuvier.—Auribus capite longioribus.

L. timidus.

L. versabilis.

L. cuniculus.

L. tolai of Gmelin, a sort of mean between the hare and rabbit.

L. nanus, America and Brasil.

L. Capensis of Gmelin.

Gen. 2. *Lagomys* of Cuvier.—Auribus mediocribus cauda non existente. Ears of a moderate size; legs somewhat different; simple; clavicles almost perfect; tail wanting; voice shrill.

L. pucellus of Cuvier.

L. ogotonna of Cuvier.

L. alpinus of Cuvier.

#### Family 2. CAVIÆ.

Gen. 1. *Hydrochærus*.—Digitis membrana junctis. The hydrochærus has four toes before and three behind, all furnished with nails and united by membranes; four grinders in each side above and below, of which the hinder-most are larger, composed of numerous simple parallel plates, the upper ones have the anterior of the plates towards the external edge; but the lower ones have their fork towards the inside.

Cavia capibora of Linné.

Gen. 2. *Guinea pigs*.—Anoema of Fred. Cuvier. Cavia of Illiger. Digitis solutis. The smallest of the caviæ; toes separate; grinders each of one plate simply, and a fork on the outer edge in the upper jaw, and on the inner in the lower jaw.

Gen. 3. *Chloromys* of Fred. Cuvier. Dasyprock of Illiger. Malaribus sulcis exaratis. Agouti of Cuvier. The agoutis have four fingers before and three behind; four grinders on each side above and below, nearly of an equal size, and crowned with a plate irregularly furrowed; their outline is round, and they are notched on the inner edge in the upper jaw, and on the inner edge in the lower. Savor of the flesh like that of hares and rabbits.

Agouti, cavia acuti.

Acouchi, C. acuchi.

Gen. 4. *Calogonus* of Fred. Cuvier.—Caviæ undique quinque unguibus. Pacas. The pacas have a great similitude to the agoutis; but the former have a small nail more than the latter upon the inside of the fore feet, and one on each side upon the hind foot: hence they have five upon each foot. We meet with a hollow cavity in the lower jaw, which is sunk under the margin, formed by a very large and prominent zygomatic arch.

Cavia paca of Linné.

#### ORDER IX.—EDENTIA.

Dentibus ad nihilum migrantibus. Quadrupeds without incisors, forming the last order of animals furnished with nails; though they are thus connected by a negative common character, yet they do not fail to exhibit some notable relations of a positive kind, particularly in the large nails which embrace the end of the toes, and approximate more or less to the nature of hoofs. Moreover they evince a certain slowness and want of vivacity, occasioned by the untoward disposition in their members, and by the absence of a certain harmony and conformity in their proportions, which nature by the lessons she has taught us in other conformations has led us to expect. These relations, by admitting some lacunæ, leave us room to divide the order into five families.

## Family 1. BRADYPIDÆ.

*Animalibus tardè incedentibus.* Bradypus of Linné.—Sloths. This family has the face short, and derive their well known appellation from the extreme tardiness of their progression. Their structure is truly heteroclite, as if, says the French naturalist, nature in some of her sportful moments had a mind to amuse us with the production of something very grotesque and imperfect; but we suspect that the great man is able to give a better account of the matter than by having recourse to a supposition that nature sometimes indulges in humorous freaks and caprices in the formation and equipment of her children. The sloths have their molar teeth cylindrical, their canine sharp, and longer than the grinders. The paps are seated upon the breast; the toes are united by skin and conspicuous; leg very large, compressed; nails adunc, which are always turned towards the sole of the foot. The hind feet, which are articulated obliquely upon the legs, are not attached by the ends of the phalanges; the toes are jointed fast by a ginglymus; the first is cemented at a certain age to the bones of the metacarpus, or metatarsus, and again are cemented together by the default of usage; to the disadvantage of organisation in the extremities they join a disproportion in the length of the arm and fore-arm, when compared with the leg and thigh, in such wise that their gait consists in resting upon their elbows. The basin of the abdomen is large, and their thighs are generally reclined upon the sides so that they cannot approach the knees. The bones of these animals are not less remarkable than the rest of their conformation; the stomach is divided into four sacs, analogous to the four ventricles in ruminant animals, but without any doublings of the inner coating, and without any prominent parts in the inside; intestinal canal short and without a cæcum.

Gen. 1. *Bradypus*.

Ai; *Bradypus tridactylus*.

Unau; B. *didactylus*.

Gen. 2. *Cholepus*. F. C.

## Family 2. DASYPIDÆ.

*Molaribus aliquando non nullis.* Snout sharp; some of them have grinders.

Gen. 1. *Tatou*; dasypus of Linné.—The armadillo is most distinguished among the mammalia by being suited in a hard scaly coat of mail, which is tessellated or divided into compartments like small paving stones, which cover the head, the body, and oft times the tail; this substance forms a helmet upon the forehead, a very large and very convex habergeon upon the shoulders, and a plate similar to the preceding upon the rump; between these two last there are several parallel bands, which, being moveable, give the body the power of bending itself; the tail is sometimes furnished with rings, and sometimes, like the legs, with divers tuberculous risings. Ears large; nails large, of which the fore-feet have sometimes five and at others only four, but the hind feet have always five; the muzzle is sharp; the grinders are cylindrical and separated from one another, about seven in number, in each situation, and destitute of enamel on the inside; tongue thin; some loose hairs are discoverable between the scales upon the portions of skin which are not covered with shell. Stomach simple and the cæcum wanting.

D. *dixinctus*.

D. *sexcinctus*.

## Family 3. ORYCTEROPIDÆ.

Gen. *Orycteropus* of Geoffroy.—The animals of this genus have a long time been confounded with the ant-eater because they use the same kind of nourishment and have a head of consimilar form; but they may be discriminated from them by their grinders and their nails, which are proper for digging, not for cutting. The structure, indeed, is different from that of all other quadrupeds; that is, in being composed of an infinite number of small transverse solid reeds. Stomach simple, muscular towards the pylorus; cæcum small and obtuse.

*Myrmecophaga Capensis*.

## Family 4. MYRMECOPHAGÆ.

*Dentibus nullis.* No teeth at all. The animals of this family are clothed with hair, and have a snout elongated and terminating in a small mouth without any teeth. From this mouth issues a filiform tongue, susceptible of great extension to penetrate the ant-hills and the nests of termites which adhere to it by means of a viscous saliva. Nails before strong and cutting, varying in number according to the species, which serve to pull down the nest of the termites and furnish their possessor with a strong weapon for defence; in a state of repose these nails are half bent inwards, pointing to the callosities of the wrist and heel; the foot is rested upon one side only. Stomach simple and muscular towards the pylorus. Intestinal canal of a moderate length and dimensions; cæcum none.

Gen. 1. *Myrmecophaga*.—Tarmanoir. M. *jubata*.

Gen. 2. *Tamandua*.—M. *tamandua*.

M. *dactyla*.

Family 5. MANIDÆ.—*Squamis muricatis*.

Gen. *Manis* of Linné.—Pangolins. Scaly ant-eaters. Without teeth; have the tongue very extensible, and feed upon ants and termites, like the ant-eater proper. But the trunk, the extremities, and the tail, are covered with sharp scales, disposed like tiles upon a roof, which becomes a means of defence when the animal rolls itself in form of a ball. Five toes to each foot; stomach slightly divided in the middle. No cæcum.

M. *pentadactyla*; *brachyura* of Erxleben.

Pangolin phagetin

## ORDER XI.—MONOMETRÆ.

## Family 1. QUADRUPEDES GENETALIBUS AVIUM.

The monometræ have but one opening for the sperm, the urine, and the fæces. The organs of generation present some unusual anomalies; for, though they are without an abdominal pouch, yet upon the pelvis they have the same supernumerary bones as the marsupial animals; the vas deferens, and the ureters, open into the cloaca at the base of the penis, which is neither bored nor hollowed into a furrow for conducting the semen. The monometræ have only, for the whole matrix, two canals, that open separately into the ureter, which terminates in the cloaca, and it has been found impossible hitherto to find any vestiges of teats; so that we have still to learn whether these animals be oviparous or viviparous. They exhibit some varieties of structure in their skeleton, as well as in the instruments and appendages of reproduction, inasmuch as they are possessed of a sort of clavicle common to both shoulders and placed before the ordinary clavicle, and is perfectly analogous to the fourchette or forked bone in birds.



Besides five nails to each foot, the males bear a peculiar spur attached to the astragalus just as it is in certain gallinaceous fowls. The ear is unfurnished with an auricle, and the eye very small.

Gen. 1. *Echidna* of Cuvier.—*Tachyglossus*. Muzzle elongated and ending in a small mouth, which contains a long extensible tongue, like that of the ant-eaters and pangolins. These creatures live upon ants like the other kindred genera; there are no teeth, but the palate is furnished with many small spines directed backwards; the feet are short and armed with five nails, very long, sturdy, and fit for burrowing in the earth; the body is quite invested in a spiny armature, like the hedge-hog; and it appears that, in the moment of danger, they enjoy the faculty of rolling themselves up into a ball like those animals. Tail very short; stomach ample and almost globular; cæcum of a moderate size; organ of generation terminated by tubercles. There is at present known only four species.

E. *hystrix*; *ornithorynchus hystrix* of Home. Covering altogether thorny.

E. *setosa*; *O. setosus* of Home. Hair mingled with the spines.

Gen. 2. *Ornithorynchus* of Blumenbach.—*Platypus* of Shaw. Muzzle elongated and at the same time is remarkably enlarged and flattened, and presents the greatest possible similitude to the bill of a duck, and so much the more in having the ends garnished in the same way with transverse plates. Teeth found at the bottom of the mouth, two in number only, and without roots, but crowned with plates and composed, like those of the *orycteropus*, of small vertical tubes. The fore-feet placed upon a membrane which not only unites the toes but is extended beyond them; but in the hind feet the web terminates at the roots of the nails; two characters which, added to the flattened tail, show the *ornithorynchus* to be an aquatic animal. Tongue in some measure double; the portion within the bill is rough with villousities, the other half is at the base of the first, thicker, and bears in front two small fleshy points. Stomach small, oblong, and has the pylorus advanced near the cardia; cæcum small. We see in the intestinal canal many of the *pliceæ* projecting and parallel. Organ of generation has a pair of tubercles.

The *edentia* terminate the series of unguiculated animals, and we come now to consider the nature of those living creatures the nails of which do generally envelope the ends of the toes; so that they approach to a certain distance within the *solidungula*; nevertheless they retain the faculty of bending the toes to accommodate the foot to the form of different objects with more or less facility. The absence of this faculty characterises the hoofed animals, which use their feet simply as organs of support. They have no clavicles, and their fore-arm remains continually in a state of pronation; and, since they are obliged to graze upon herbage from the beginning of their lives, they must exhibit fewer variations in form and adaptation than we meet with among the tribes of unguiculated beasts.

#### ORDER XII.—PACHYDERMATA.

The *pachydermata* have five toes to each foot, quite complete in the skeleton, but they are generally encrusted in callous skin which surrounds the foot, so that they do not appear without, and the horny substance of the nails is increased, and, as it were, molten into a hoof. The canine and incisors, strictly speaking, are wanting, but in the place of incisors are seated those weapons which

rise out of the mouth and often assume an enormous length. The size necessary for the alveolæ renders the upper jaw so high, and so much abbreviates the bone of the nose, that the nostrils are found in the skeleton towards the upper part of the face; but, in the living animal, they are prolonged into a cylindrical tube, which is composed of many thousand small muscles diversely interlaced, moveable in its whole length, endowed with an exquisite sense of feeling, and terminated by an appendage in shape like a finger. The trunk lends to the elephant nearly as much address as the use of a hand, and serves to pump up its beverage, and convey it to the mouth. To countervail the preponderance of a head large enough to support this admirable instrument, the cranium contains several large voids; the lower jaw has no nerves at all; the intestines are very voluminous; the stomach simple; cæcum of an enormous magnitude; teats generally two, placed upon the breasts.

Gen. 1. *Elephas*. See ELEPHAS.

Gen. 2. *Hippopotamus*.—Have the four toes nearly equal and terminated by hoofs; grinders six in each respective situation, of which the three anterior are of a conical shape, but the three posterior are rough, with two pairs of points, and assume, by being worn down, the form of a quatrefoil or true-love's knot; four incisors in each jaw; upper short, conical, and recurved; lower long, cylindrical pointed, and bent down outwards. One canine tooth on each side; turn upon one another like a hinge; upper one straighter; lower very thick and recurved, worn by rubbing one against the other.

Gen. 3. *Sus*.—*Dentibus caninis exertis*. Each foot has the mean toes large and armed with strong hoofs; the lateral toes much shorter and scarcely reaching to the ground; incisors variable, lower ones bent down; canine teeth becoming tusks; snout truncated and proper for burrowing.

S. *scrofa*.

Gen. 4. *Babyrussa*.—*Caninis inspiram retortis*.

Gen. 5. *Phaco-chærus* of Frederic Cuvier.—*Capite utrinque panno instructo carnis*. Grinders composed of cylinders jointed by a cortical substance, nearly like the transverse plates of the elephant, and disposed lengthwise. Cranium is remarkably large; tusks round, directed forwards and of a frightful magnitude. On each side of the jaws there is a large fleshy tube which renders their figure more hideous; two incisors above and six below.

S. *Africanus* of Gmelin.

S. *Æthiopicus*.

Gen. 6. *Dicotyles* of Cuvier.—*Dentibus caninis non exertis*. Peccary. The peccary has the incisors and grinders nearly like those of the hogs, but the canine teeth do not, as in ordinary cases, spring. Hind feet destitute of the outer toe; tail deficient. Upon the loins there is a glandular opening, whence issues a fetid humor. The bones of the metatarsus and the metacarpus are cemented together with the bones of the great toes, into a sort of canon bone, as in the *ruminantia*; they have also, like them, a stomach divided into several pouches, by which they claim a very near relationship. The enlargements of the aorta observed in this animal are too regular to leave us room to suppose that the animal suffered aneurism.

D. *torquatus*.

The common *pachydermata*, which have the foot bifurcated, comprise two genera, very simila



grinders in each side; seven above, with an even crown, not diversified with lineaments; seven below, with a double crossing, except the last, which has a trefoil.

Gen. 7. *Rhinoceros*.—This genus varies also in this respect; foot divided into three toes; the bone of the nose is very thick, and in shape of a vault, being a solid bone of a fibrous texture adhering to the skin, as if it were composed of hairs conglutinated together. Disposition fierce and stupid; affects swampy places; simple stomach; intestines very long; cæcum very large.

*Rhinoceros Indicus.*

*R. Africanus.*

Gen. 8. *Hyrax*, Her.—*Pedibus anterioribus cum quatuor digitis.* Damans. The hyrax was, during a long time, associated with the rodentia, on account of its small size; but if we examine it closely we shall find that it is in some measure a rhinoceros in miniature, having precisely the same grinders; but the upper jaw has two strong recurved incisors, and in youth two very small canine teeth; the lower jaw has four incisive teeth, but no canine; fore feet with four toes; hind ones with only three; all of them with a kind of hoof, and round, except the inner part, which is armed with a crooked nail of an oblique direction; snout short; ears short, and covered with hair; a tubercle instead of a tail; stomach divided into two pouches, besides a large cæcum, and several dilatations in the colon; towards the middle of these are two appendages like the cæcal of birds.

Gen. 9. *Tapir*.—*Rostro protenso.* The tapir has twenty-seven grinders, which prior to trituration present transverse and rectilinear risings; jaw, six incisors, and two canine teeth, which are separated from the grinders by a void space; nose in form of a small tube.

#### ORDER. XIII.—*SOLIDUNGULA.*

The solipedes are quadrupeds which have but one toe apparent, bound up in a hoof; they bear upon each side of the metatarsus and upon the metacarpus two stylets. These represent the lateral toes.

Gen. *Equus*.

*Equus caballus.*

*E. hemionus*; *F. Dzighlai*. Intermediate in point of size between the horse and the ass.

*E. asinu*

*E. zebra.*

*E. quaccha.*

#### ORDER. XIV.—*RUMINANTIA.*

This order is perhaps the most natural and best determined of the class; for the animals pertaining to it have the mien of being almost all of them constructed upon the same model, and the camels alone present some exceptions to a common character. The first of the characteristics which deserve to be mentioned is that of having the incisors only in the lower jaw, generally seven in number; they are replaced above by warty prominences; between the incisors and the grinders there is a void space wherein we only find in some genera one or two canine teeth; the molar teeth are generally six in each respective situation, marked with two double crossings, of which the convexity is turned within in the upper, and without in the lower jaw. The four feet are terminated by two toes and two hoofs, which turn a flat face to each other in such wise that in a state of repose they seem but one hoof cloven in the middle, whence it has come to pass

that these have been called cloven footed. Behind the hoof there are sometimes found two small spurs as vestiges of lateral toes; the bones of the metacarpus and the metatarsus are as it were molten together, and bear the name of canon bones, &c. The term ruminantia implies a remarkable attribute which these animals possess of chewing their aliment a second time, which for this purpose re-mounts up into the mouth after the first deglutition: a property depending upon the structure of their stomachs, which are always four in number, whereof the first three are disposed in such a manner that the food may, at the pleasure of the animal, enter into any one of the three from the œsophagus, which ends at the point of communication. The first, or largest, is named the rumen or paunch; it receives in abundance the herbs rudely masticated at the cropping, which pass thence into the second, called the reticulum, of which the walls, by numerous intersections of small plaits, exhibit a resemblance to the cells of bees. This stomach is very small and of a globular shape; it seizes the herbs, and subacts and compresses them into little balls ready for a subsequent chewing. During this operation the animal continues in a state of quietude, after which the reduced aliment passes into the third stomach, named omasum (French *feuillet*), because the foldings in its walls are like the leaves of a book; thence it passes into a fourth, denominated from its relation abomasum. and by the French *caillette*, the sides of which present only wrinkles, and it is analogous to the stomachs of other animals. The paunch does not fully unfold itself till after lactescence is over, and the young has begun to be sustained by the green herbage. The intestinal canal of the ruminantia is very long and somewhat inflated in the long intestines; the cæcum is very long and very thin; the fat hardens in cooling like that of other animals, and by melting becomes what is called suet or adipose matter. Udder between the thighs. The ruminantia are of all animals those from which man derives the greatest care, and from which he draws almost all the food upon which he feeds.

#### DIVISION I.—*SINE CORNIBUS.*

Gen. 1. *Camelus*.—*Digitis quasi consutis, verrucis substratis.* The camels approach nearer to the preceding order than the rest of their kindred; for they have not only canine teeth, but also two planted in the os-incisivum; the lower incisors are six in number; molar teeth from five to twenty; attributes which they among the mammalia alone possess. They have the scaphoid and cuboid bones separate. Instead of the large flattened hoof on the side externally, which covers the lower part of each toe, and determines the figure of the bifurcation, there is one small one adhering fast to the phalangeal bone, and of a symmetrical form, with the hoofs of the pachydermata. Their lip is cloven and puffed up; the nose long; the orbits prominent. The risings of the back, and the unpleasing disproportion of the legs and feet, while the hind ones are in some measure deformed, render them unsightly; but the extreme gentleness of the disposition, and the facility with which they travel many days without drink, render them exceedingly useful. This faculty of sustaining life without recruiting the stock of refreshment is dependent upon a large mass of cells that overspread the sides of the paunch, which retain the water in a state of purity, to minister a constant supply of moisture.



according to the wants of the animal; the other ruminantia have nothing similar. The camel is retromingent, as the male organ of generation is directed behind, which renders coition difficult, but it is somewhat assisted by the recumbent position of the other sex. In rutting season a humor is secreted from the head. The particular character for immediate discrimination consists in having two toes united underneath almost by a common seam, and the feet charged with warts.

Gen. 2. *Auchenia* of Iliger.—*Digitis solutis, nullis verrucis*. The lamas have the two toes separate, and are destitute of the warts.

Guanaco; camelus llama of Linné. An individual of this species may now be seen in the gardens of the Zoological Society.

Paca, or vigugna; camelus vicuuna of Linné.

Gen. 3. *Moschus* of Linne.—*Dentibus caninis exertis*. The musk deer are by far less anomalous than the camels, and do not differ from the other ruminants, save in the want of horns, and in the long canine teeth in the upper jaw, which spring from the mouth of the male, and ultimately become very long; in the skeleton we find a fibula, which does not exist in the camels.

*Moschus moschiferus*.

#### Division II.—CUM CORNIBUS SOLIDIS.

All the rest of the ruminantia have, at least in the males, two horns, that is to say, two prominences, more or less long, emanating from the frontal bones, which does not take place in any of the other families. In some of them these prominences are covered with an encasing of an elastic substance, composed of agglutinated hairs, which continue to increase during the whole life of the animal; to this we give the name of horn (a word of very ancient extraction, and which has a very numerous kindred—*ῥῆγ, κερα*, cornu, Fr. corne, Spanish cuerno, Italian corno, German corn, Hindostanee qurn), and it is sometimes called a hollow horn; of this kind are the horns of oxen, sheep, goats, and antelopes. In others these prominences have a clothing of skin, which is continuous with that of the head, and which is never destroyed; lastly, in the genus *cervus*, the prominences are covered during some time with skin like the rest of the head, and have at the base a ring of bony tubercles, which, upon enlarging, compress and close the nourishing vessels of the skin. It becomes dry, and is raised; the bony prominence is laid bare and separated from it at the end of a certain interval of time, from the cranium to which it was held; it falls, and the animal remains a time without horns; but they are forthwith replaced by the rudiments of new ones, which, in an ascending series, surpass in size and development their predecessors, and are destined to undergo the same revolutions. Horns completely bony, and subject to these periodical changes, are called wooden or timbered horns by the French; and with great propriety, for there is a wonderful analogy between their mode of growth and reproduction and that of the vegetable part of creation, particularly in the expansion, falling off, and reappearance of the foliage in trees: indeed this may be considered as the point of contact where the cycles of animal and vegetable demonstrations mutually touch.

Gen. 1. *Cervus*.—The deer stands in front of those ruminantia which have timbered horns, but we except one species, the rein-deer. The females are always deprived of this peculiarity. The sub-

stance of this timber or wood, when it has acquired its full development, becomes a very dense and compact substance, without either pores or sinuses; its figure varies according to the species, and always according to the age of the animal.

*Cervus axis*.

*C. alces*.

*C. elephas*.

*C. tarandus*.

*C. Canadensis*, or *strongyloceros*.

*C. virginalis*.

Gen. 2. *Camelopardalis*.—The giraffes have for their chief characteristic the horns quite covered by the incasing of skin in both sexes, which never fails, though these creatures are more remarkable by the disproportioned length of their neck and fore legs, and large tubercles upon the chanfrein.

#### Division III.—CUM CORNIBUS CAVIS.

The ruminantia 'with hollow horns' are more numerous than the rest, and we have been obliged to divide them into genera by characters of less importance derived from the form of their horns, and from the proportions of their different parts. M. Geoffroy has pointed out with success the importance of ever attending to the substance or shell of these frontal prominences.

##### Sect. I.—ANTHOLOPHI.

*Cornibus concavis sursum versis*. We have ventured to restore this word to its original purity; for it must be deemed the excess of modesty to suffer a term of such barbarous construction as antelope to deform our nomenclature. The antholophi have the substance of the bony shell solid and without pores or sinuses, as in the timbered horns of the deer. They resemble the deer in other respects by their lachrymatories, by the lightness of their scale, and the fleetness of their course. This is a numerous group, and may be divided into genera after the form of their horns. Horns ringed, of a double curvature, pointed before, and directed upwards.

La Corinna, *A. corinna*.

Kevel, *A. kuella* of Gmelin.

Gazelle, *A. doras*.

##### Sect. II.—PECORA.

Animals of this subdivision have the shell of their horns bony, occupied in a great measure by cells which communicate with the frontal sinuses. Divided into families according to the direction of the horns.

CAPRÆ.—*Cornibus compressis, scabris*. The goats have horns directed upwards and backwards, and generally a beard upon the chin; chanfrein concave.

OVES.—*Cornibus retrorsum versis, rugosis*. The sheep have the horns directed backwards, and returning more or less in a spiral direction; chanfrein generally convex; no beard upon the chin. The simple bearing and direction of the horns may perhaps seem too slight a mark for generic division; but yet the natural habitudes of these two families demand that we should select external notes to assist the eye in associating certain peculiarities of form with certain peculiarities of disposition.

BOVES.—*Cornibus concavis, antrorsum versis, lunatis, lævibus*. The ox has his horns directed sideways and returning upwards and forwards in a crossing position; generally a broad muzzle; thick and firm built stature, and sturdy legs.

Gen. 1. *Taurus*.—*Cornibus teretibus, extrorsum curvatis*; horns tapering, curved outwards



Gen. 2. *Zebu*.—A large protuberance upon the shoulders.

Gen. 3. *Arnee*.—Cornibus erectis lunatis supra planiusculis rugosis; horns upright, flattish, and wrinkled above.

Gen. 4. *Bubalus*.—Cornibus resupinis intortis antice planis; horns lying backwards, turning upwards, flat on the forepart.

Gen. 5. *Moschatus*.—Cornibus (maris) approximatis, basi latissimis; horns of the male approximated at the base.

Gen. 6. *Yak*.—Caudâ undique jubata; tail villose, and like that of a horse.

#### ORDER XV.—CETACEA.

The cetacea are mammiferous, with feet behind, and a trunk prolonged into a tail, thick and terminating in a horizontal tail of cartilaginous consistence; the head is joined to the trunk by a neck, but so short and straight that we cannot perceive any diminution; it is composed of cervical vertebræ, very thin, and partly cemented together. The anterior extremities have the bones concurrent, flattened, and unfolded into a tendinous membrane or web, which is reduced to the nature of true fins. The cetacea possess almost all the generalities of external form which the rest of the finny tribe present, except the vertical tail. They respire air by means of lungs, though destined to spend their life in the water, and are therefore obliged from time to time to ascend to the surface to inhale the principle of oxygenation; their blood is warm; ears open outwards, though by small orifices; but the residue of their anatomical detail corresponds to that of other fishes. The brain is large, and has its hemispheres well developed; the sensorium, and that part of the cranium which contains the internal ear, are separated from the rest of the head, and adhere to it only by means of some ligaments. There is no external ear, nor any hair upon the body. The horizontal position of their tail obliges them in swimming to urge themselves along by the reaction of an impulse given in a vertical direction, that is, by moving that instrument of progression upwards and downwards. In this we discern an obvious and important difference between this order of mammalia and the class of fishes which swim by moving the tail right and left, or in the plane of their course. In this disposition of the tail nature seems to have consulted their wants by giving them a form adapted for rising out of the water with ease, which the frequent cessation of breathing renders necessary. Among the cetacea we shall insert those animals which have long been confounded with the walrus.

#### Family 1. CETACEA HERBIVORA.

The teeth of this family are crowned with plates, which determines their kind of life. Their mode of living engages them to come ashore oftentimes to feed upon the seaweed and other vegetable rejectamenta of the sea. They have the paps seated upon the breast, and some hairs for whiskers: two circumstances which, at a distance, when they rise vertically out of the water, give them a certain resemblance to a female of our own species, and was probably the first origin of the imagination of mermaids, and other sea-monsters of human configuration.

Gen. 1. *Manatus*.—Cuvier. Dentibus incisiviis ocyus excidentibus. Body long, terminating in a fin of an oval elongated form; grinders seven, inside above and below, square, crowned, and marked with two transverse risings; no incisive or canine teeth in the full grown animal, but in the young one we meet with a pair of very small pointed teeth in the intermaxillary bone, which soon disappear. We can discern the vestiges of small nails upon the margins of their fins, which assist them in creeping, and help them to carry their little ones: this has occasioned these organs to be compared to hands; whence the name of manatus, handed, which by corruption has become lamantin. Their stomach is divided into long pouches; cæcum also parted into three branches; colon inflated: all of them characters belonging to herbivorous animals.

*Trichecus manatus* of Linné. Sea-calf.

Gen. 2. *Halicore* of Iliger.—They have each of the grinders composed of two cones placed side by side; the teeth, which are implanted in the intermaxillary bone, are permanent, increase, and become defensive weapons, but are in a great measure covered by the lips, which are fleshy, and clothed with mustachios; body elongated; tail terminating in a fin in shape like a cross.

Gen. 3. *Rytina* of Iliger; *ρυτινη* (ultimately from *ρυνω*), to be curled into waves or wrinkles like running water.—This genus appears to have on each side but a single grinder, which is flat and rough, with plates of enamel; the fins have not the small nails which are observed in the lamantins. According to Iliger, who first described this fish, the stomach is small.

#### Family 2. CETACEA CARNIVORA.

This family is distinguished from the last by a singular apparatus, which has gained for them the name of blowers. Since, in swallowing their prey, a large volume of water must necessarily enter the narrow throat, some means for parting with it becomes indispensable, which is accordingly effected by the mediation of a particular disposition of the palate, and the water is amassed in a sac placed at the orifice of the cavity of the nose, whence it is driven with great violence by the compression of very powerful muscles, through a very narrow opening in the summit of the head, and produces a jet of water, the noise of which in a calm night resembles the hissing ignition of a sky-rocket, and may be heard at a great distance by the sailors. The nostrils, being without intermission crossed by the waves of sea-water, could not be very subtle in the discernment of odors were the pituitary membrane very delicate; but they have none of the prominent parts so conspicuous in other animals, and the olfactory nerves are very small, and therefore, if they do enjoy the sense of smell at all, it must be very imperfectly.

Their larynx is in form of a pyramid, and communicates posteriorly with the nostrils to receive the air, and communicate it to the lungs; without this contrivance the animal would be obliged to lift its head and throat out of the water every time it had occasion to respire; hence we see that these fistulæ, as they have been called, answer chiefly the purpose of respiration, whereas in other animals of this class the corresponding organs are destined by their formation to fulfil the special office of smelling,



and only conduct the breath as a sort of accessory to the mouth; we do amiss, therefore, to call these apertures after another name, since analogy reclaims against it, and the student of natural history is led to suppose that the organs are of a different kind, and not of the same kind with a different organisation. Besides this is contrary to the more recent practice, which chooses to consider the absence of any part as occasioned by its coalescence with a neighbouring portion, and the presence of a supernumerary part as the extraordinary development of some other, so that in the same class the totality of members may be preserved as much as possible. The animals of this family are destitute of those prominent plates in the glottis which the creatures endowed with a voice possess: any audible utterance produced from the throat must be merely groans. There is no vestige of hair, and the whole body is covered with a smooth skin, under which lies a thick layer of fat, very abundant in oil. Teats near the anus; fins incapable of laying hold of any thing. Their stomach has five and sometimes nearly seven distinct pouches, and instead of a single spleen they have many small globular ones. Those which are possessed of teeth have them all conical, and similar to one another: they do not chew the food, but swallow it greedily. Two small bones suspended in the flesh near the anus are the only vestiges of posterior extremities that remain. Some of them have upon their backs a vertical fin of a tendinous structure, but it is unsupported by bones; their eyes are flat before; sclerotica thick, and solid; tongue has only thin and soft ligaments.

#### Subdivision 1. *Capite concinno.*

Delphini of Linné. Head of ordinary proportions. Teeth in both jaws are simple, and almost always conical; disposition most carnivorous in the ratio that it is provided with weapons.

Gen. 1. *Delphis* of Cuvier. Delphini cum rostro producto. Mouth so much thicker than the rest that the head assumes the appearance of a sort of beak or rostrum.

D. delphis of Linné.

D. rostratus.

D. tursio homnaterre of Le Souffler.

Gen. 2. *Phocæna* of Cuvier.—Delphini rostro haud insignes. Without the rostrum, the mouth being of a uniform enlargement.

D. phocæna.

D. orca or gladiator grampus.

Gen. 3. *Delphinaptera* of Lacepede.—Delphini pinnam super dorso non habentes. Differ from the last solely in the want of a dorsal fin.

D. leucas of Gmelin. Albicanus Fabricius.

Gen. 4. *Hyperoodons*.—Delphini in maxilla inferiore duo aut nullis dentibus. The hyperoodontes have the snout and body conformable to the delphinines; but they have only two small teeth in their lower jaw, which do not always appear. Palate rough, with small tubercles.

H. edentulus. Two-toothed dolphin of Hunter.

Gen. 5. *Monodon*.—Delphini pro dentibus incisivis cornu porrecto. The monodon has no teeth properly so called, but have the want of cutting teeth supplied by a long, straight end, pointed, implanted in the intermaxillary bone, and parallel to the direction of the body. The shape of the body in other respects resembles the phocæna.

Monodon monocerous.

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#### Subdivision 2. *Capite ingente.*

Head so large that it equals one-third or even one-half of the length of the body; but the skull and the brain do not participate in this vast disproportion, which has the appearance of being occasioned by an enormous development of the face.

Gen. 1. *Physeter*.—Dentibus infra. Very voluminous, and excessively turgid before; upper jaw nearly or quite destitute of teeth, and without cartilaginous lappets; lower jaw narrow and lengthened, fitting a furrow in the upper one, and is furnished on each side with a row of cylindrical teeth, which terminate in a conical point, and enter into corresponding cavities in the upper jaw when the mouth is shut. The upper jaw of this enormous head consists almost entirely of large cavities, curved and separated by cartilages, filled with oil, which hardens upon being cooled, and is known in commerce by the chimerical name of spermaceti the body is not so abundantly furnished with fat. These cavities are very different from a true cranium, which is placed under the hind part, and contains the brain as usual. It appears that these cavities are filled with this adipocire, which is distributed over many parts of the body, and communicate with the cavities, which make up the mass of the head, and are also interwoven with the fat which lies under the skin. The odorous substance known by the name of ambergris appears to be a concretion found in the intestines of the cachalot, which in certain states of disease, it would seem, is found in the cœcum. *Physeter* is derived from *φύω*, which once without doubt signified to breathe, giving rise to *φυσάω* by an epenthesis of the syllable *σα*, meaning to blow. Cachalot, with a dorsal fin. We distinguish among them two species, merops and tursio, according to the nature of their teeth—straightened or bent, sharp or obtuse.

Gen. 2. *Balaena*, formed from *βαλῶ*, obsolete of *βαλλῶ*, in allusion to the jetting of the water from their nostrils.—Equal to the cachalots in point of dimensions, and in the proportionate magnitude of the head, though they are not so embulged before, but they are destitute of teeth. Upper jaw in shape of a keel or roof inverted; on both sides it is furnished with numerous plates, fine and thick set, called by the French fanons or dewlaps, composed of a kind of fibrous bone, hacked at the end, which serves for retaining the small animals upon which the enormous creature feeds; lower jaw supported by bony branches, arched within and above, without any broad fleshy tongue, very thick, and envelopes, when the mouth is shut, all the inside of the upper jaw, and the bony palate by which it is embraced. This kind of organisation does not allow the whales to nourish themselves with animals so large as their size might seem to demand. They live upon small fish, frequently upon worms, upon zoophytes, and it is said by the whale fishermen that they catch the smallest worms by intercepting them in the filaments of the palatal developments.

B. mysticetus.

B. glacialis of Klein.

Gen. 3. *Balenoptera*.—Ventre lunato. One dorsal fin upon the back, and a crescent-shaped belly.

B. physalis.

Gen. 4. *Balenoptera*.—Cute juguli pectorisque in plicis lecta. Skin of the throat and chest folded into longitudinal very deep ridges or plaits, and capable of great dilatation.

B. boops.



## CLASS II.—AVES.

Though the three classes of vertebral oviparous animals differ greatly among themselves in the quantity of respiration, and in circumstances relating to it; namely, in the vigor of their movements, and in the energy of their senses, yet they exhibit some common characters, when we survey them in counterview with some of the vertebral viviparous animals, as will better appear when we come to consider the nature and arrangement of such creatures as the frog, the lizard, &c. Their brain has the hemispheres very thin and not united by means of a callous body; the nates assume a very considerable development, and are hollowed by one ventricle, and are not covered by the hemispheres, but are visible underneath; or at the sides of the brain; the crura of the cerebellum do not form that protuberance called *pons varolii*; the nostrils less complicated; the ear nearly without bones in some birds, and entirely without in others; the helix when it does exist is much more simple. The lower jaw is always composed of very numerous pieces, and is attached to the upper by a single concave facet upon a prominent portion, which belongs to the temporal bone. The bones of the cranium are more subdivided, and remain a longer time before they coalesce; although they occupy the same places and fulfil the same offices; the frontal bone is of five or six pieces. The orbits are separated from one another only by a long plate of the sphenoid, or by a membrane. When these creatures have the anterior extremities slender, the clavicles are united, and the shoulder blade is fastened to the sternum by the coracoid apophysis, and very much prolonged and dilated. They have no epiglottis upon the very simple larynx; the lungs are not separated from the abdomen by a complete diaphragm. But, in order to have a full comprehension of their several relations, we must enter more minutely into their anatomical details, which would be incompatible with the prescribed length of this article; but let it suffice to remark that the analogy of oviparous vertebral animals between their genera is constructed upon a wider plan than that which obtains among the mammalia.

Oviparous generation essentially consists in the circumstance that the young one is not fastened by means of a placenta to the sides of the uterus or oviduct; but remains some time separated from it by an external covering. Its nourishment, which is called the vitellus, is prepared before hand, and is contained in a sac derived from the intestinal canal, and to which the embryo is for some time as a kind of appendage almost imperceptible at first, but is afterwards augmented by absorbing the liquor of the yolk. Those oviparous animals which respire by lungs have for the most part in the egg a membrane, very richly charged with blood vessels, which appears to minister in respiration, and is connected with the bladder, and represents the allantoid in mammiferous animals. This has not been discovered in fish nor in frogs, which in their first stage of separate existence respire by means of gills. Many of the oviparous among cold-blooded animals do not part with their young immediately after the latter are disunited from the investing shell or membrane, which parted them from their mother; these have been termed false viviparous.

*A summary of the chief characters of the second class of vertebral animals.*—This class comprises vertebral oviparous animals with a double respiration and double circulation, and an organisation fitted for soaring aloft in the air. Their lungs are divided, fixed to the sides, and are enveloped in a membrane perforated with many holes; which permit the air to pass into numerous cavities in the breast, the lower belly, the arm pits, and also into the bones; so that the outward fluid not only bathes the pulmonary vessels, but also an infinitude of vessels in every part of the body. Thus birds respire in some measure by the branches of the aorta, as well as by the pulmonary artery; for by respiration we understand the commingling of the air and the blood, when the latter is in a state of circulation. Thence we observe that, since the energy of irritability is proportioned to the quantity of respiration, the whole of their body is disposed to draw a part of it.

The abdominal basin is very much extended backwards in length, in order to furnish attachment for the muscles, which support the trunk upon the thighs; there is also a set of muscles rising from the pelvis, and passing over the knee and heel; so that the simple foot of the bird binds the toes: this is what renders them able to sleep perched upon the foot. The ischia and the pelvis are prolonged and separated, so as to leave room for the passage of the eggs.

The sternum, which affords to the muscles that depress the wing and bring it down in smart strokes upon the air an attachment of very great extent, which is farther augmented by a prominent plate in the medium line, is composed of five pieces, the mean of which is a rising plate, two lateral anterior for attaching the sides, and two posterior: the greater or less degree of firmness in these parts denotes the greater or less degree of vigor in the bird.

The fork produced by the union of two clavicles, and the two strong arches formed by the coracoid process, separate the shoulders; the wing is supported by the humerus, forearm, and the hand, which is elongated, and presents one finger and the vestiges of two others. Tail bony and very short, but it bears a rank of strong feathers, which in spreading contribute to support the bird; the number is commonly twelve, sometimes fourteen, and in the gallinaceous fowls they are increased to sixteen.

The legs possess a femur, a tibia, and a fibula which is fastened to the femur by a particular articulation, so that intension is maintained without effort of the part; the tarsus and metatarsus consist of a single bone, which is terminated below by three pulleys. They have generally three toes before, and the great toe behind, but the latter is sometimes wanting; it is directed before in the martinet. In the climbers, on the contrary, the outer toe and the thumb are directed behind. The number of articulations increases at each toe, commencing at the thumb, which has two phalangeal bones, and the last two five.

The eye of birds is disposed in such a manner as to be able to distinguish distant and near objects with equal precision; a membrane vascular and folded, which is sent from the bottom of the globe at the further part of the crystalline lens, contributes probably towards the shifting of the lens. The anterior face of the globe is in other



respects sunk in a circle of long pieces; and, besides the two ordinary eye-lashes, there is always a third placed at the corner of the eye, which by means of a muscular apparatus of remarkable contrivance is drawn before the eye-ball, like a curtain. The cornea is convex, but the crystalline is flat, and the vitreous humor small. The ear of birds is nothing save a meatus between the tympanum and the fenestra ovalis; the helix is a cone somewhat arched, but the semicircular canals are very large and lodged in airy cavities, which communicate with the shoulder: the birds of night have a large external ear as in quadrupeds; this opening is generally covered with feathers of finer texture than the rest.

The organ of smell, concealed in the base of the beak, is commonly of cartilaginous horns without any complication, and is very sensible. There are not the hollow sinuses in the thick part of the cranium; the size of the nostrils determines the size of the bill.

The tongue is somewhat of a muscular substance, and is supported by a production of the os hyoides, and is rather delicate in a great many birds.

The brain of birds has the same general character which is possessed by the vertebral oviparous animals, but is distinguished by proportional size and consideration, which sometimes surpasses the same organ in mammiferous animals; it is principally of tubercles, conformable to the canals on which depends its volume, not on the nemispheres which are very thin and without circumvolutions; the cerebellum is very large, and nearly without lateral lobes, and almost completely formed by vermiform appendages. The trachea of birds has its rings entire, and its glottis is in form of a bifurcation, very often provided with muscles, and may be called an inferior larynx: it is this which forms the voice of birds. The enormous quantity of air which is contained in aerial sacs contributes to the force of this voice.

Of all the classes of animals that of birds is the best distinguished, and that of which the species bear the greatest similitude to one another, and which is separated from the rest of the animal creation by the broadest line of demarcation; this is what renders their subdivision so extremely difficult, and liable to so many variations according to different aspects under which they are viewed. Their distribution is founded, as among the mammiferous class, upon the relative structure of the organs of manducation, or the bill, and upon the instruments of prehension or the feet, or summarily in distributing them we consider the nature of the bill and feet. As this subject has already been contemplated, in the article ORNITHOLOGY, we shall forbear to expatiate upon particulars already considered; and, for the purpose of exhibiting the relative bearings of this department, we shall pursue the tenor of our arrangement through the series of orders, delaying the tide of our discussion wherever the exigencies of this work may seem to require it.

#### ORDER 1.—ACCIPITRES.

This order is analogous to that of the carnivora among the mammalia, that is, it bears the same ratio to the other orders of birds that the carnivorous orders of quadrupeds bear to the rest. The muscles of their legs and thighs indicate their compact

force; their tarsi are seldom elongated; all of them have four toes; the nail of the great toe, and that of the inner toe, are very strong. They compose two divisions, the diurni and the nocturni.

#### Division I.—DIURNI.—Acie in obliquum.

The diurni have the line of vision in a lateral direction; a membrane called a cere covers the base of the bill, in which the nostrils are bored; three toes before, one behind, without feathers, the two external almost always united at their base by a small membrane; the plumage compact; the feathers strong; the flight lofty and towering; their stomach almost entirely membranous; their intestines of very little extension; their cæcum very short; sternum broad and completely ossified in order to give the muscles of the wing a plane of attachment of greater amplitude; their forked bone (fourchette) is wide, the better to afford resistance to the violent beatings of the humerus which a rapid flight requires.

#### Family 1. VULTURES.—Capite sive collo nudo.

The vultures have the eyes even with the head; the tarsi reticulated, that is to say, invested with small scales; the beak lengthened; recurved only at the tip; and a part more or less considerable of the head and neck bare of feathers.

Gen. 1. *Vultur*.—Capite nudo.

Gen. 2. *Grypaetus* of Storr.—Phene. Savigny capite plumis obducto. Beak very strong, straight, hooked at the tip, swelled upon the hook; the nostrils are covered with stiff hairs, directed forwards; there is a pencil of similar hairs under the beak; their tarsi are very strong and feathered to the toes, and are obviously distinguished from the vultures proper by having the head covered with feathers.

*Vultur barbatus* and *falco barbatus* of Gmelin.

#### Family 2. FALCONES.—Oculis cavis.

The birds of this numerous genus have the head covered with feathers; their eyebrows form a rising or prominence which makes the eye appear sunken, and gives to their physiognomy a character quite different from that of the vultures.

Gen. 1. *Falco* of Bechstein.—Bill curved from the base, and having a sharp tooth on each side of the point; the second feather of the wings longer than the rest.

*F. communis*.

*F. subbuteo*.

*F. rufiges*.

*F. cesalon*.

*F. tinnunculus*.

Gen. 2. *Hierofalco* of Cuvier.—This genus exhibits all the disposition of the noble falcon as well as the nature of the wing feathers, but their bill has but one feston, like that of the ignoble; their tail is long and graduated, and greatly surpasses the wings in length, though they be very long; tarsi short and reticulated.

*Falco candicans*, *F. cinereus*, and *F. sacer*, of Gmelin. In forming three species out of one, Gmelin and others were misled by deriving their descriptions at different stages of growth; many examples of this kind will occur in the course of this part of our article; when, to avoid a repetition, the several synonyms will appear in an immediately consecutive order.

Family 3. *AQUILÆ*.—Volatu imbeciliores.

Fourth feather of the wing is almost always the longest, and the first very short, which effectually abbreviates the tip of the wing obliquely, and of consequence renders the flight more feeble.

Gen. 1. *Aquila* of Brisson.—Tarsi feathered to the root of the toes.

*Falco fulvus*, *melanætos*, *niger*, *mogilnik* of Gmelin.

*F. chrysaetos*.

*F. nevius*, *maculatus*.

Gen. 2. *Holæetus* of Savigny.—Tarsi clothed with feathers at the upper half, and with demi-escutcheons upon the rest of their length.

*Falco ossifragus*, *albicella*, *albicaudus* of Gmelin.

*F. leucocephalus* of Euler.

Gen. 3. *Pandion* of Savigny.—Talons round underneath; whilst in the other birds of prey they are hollowed into a sort of canal; their tarsi are reticulated, and the second quill feather is the longest.

*Falco halætus*.

*F. Brasiliensis*.

*F. aquilinus*.

Gen. 4. *Harpyia* of Cuvier.—Wings short; tarsi very stout, very strong, reticulated, and partly feathered.

*Falco harpyia cristatus* of Linné. *Harpyia imperialis* of Storr.

Gen. 5. *Morphus* of Cuvier.—These like the preceding have the wings shorter than the tail; but their tarsi are raised and thin, and their toes feeble.

*Falco Guianensis* of Daud.; the small eagle of Guiana of Mend.

*F. urubitinga* of Linné.

*F. occipitalis*.

*F. ornatus* of Daud.; *superbus et coronatus* of Shaw.

Gen. 6. *Cymindis* of Cuvier, *κυμανδης*.—Beak like the preceding; tarsi very short, reticulated and half covered with feathers before; wings shorter than the tail; but the most distinctive character consists in the nostrils being nearly shut like chink.

*Falco Cayennensis* of Gmelin.

Gen. 7. *Astur* of Bechstein.—Dædalion of Savigny. They have the wings shorter than the tail, like the three preceding genera, but their beak is curved to the base.

*Falco palumbarius gallinarius*.

*F. cachirmans*.

Cuvier considers it probable that the *F. gryf* and the *F. gentilis* may belong to the first species.

Gen. 8. *Nisus* of Cuvier.—Wings with the same proportions as the preceding genus, but they have the tarsi escutcheoned and more elevated.

*Falco nisus*.

*F. musicus* of Daud.

Family 4. *MILVI* of Bechstein.—Alis longissimis.

The kites have the tarsi short, the toes and talons feeble, which, added to a beak unequally apportioned to its size, compose an assemblage of genera the most loose of their kind; but they are distinguished by wings excessively long, and by the forked tail which gives to their flight the greatest rapidity and ease.

Gen. 1. *Elanus* of Savigny.—*Tarsis curtis*. The *elani* have the tarsi very short and demi-feathered above.

*Le Blac* of Vaillant. Africa. About the size of a

common sparrow-hawk, with a soft and silky plumage; tail somewhat forked; ash-colored above; white beneath; the lesser wing coverts are black. Common from Egypt to the Caspian.

*F. furcatus*.

Gen. 2. *Milvus*.—Have the tarsi very strong and escutcheoned.

*Falco milvus*.

Gen. 3. *Pernis* of Cuvier.—They have, with the feeble beak of the kite, a remarkable character, that is, the interval between the eye and the bill, which in other falcons is naked, and furnished only with a few hairs, is found in this genus covered with very compact feathers which are cut into scales. Their tarsi are covered with feathers half way down, and reticulated; they have the rest of the tail equal, the wings long, the beak curved at the base as all those which follow.

*Falco apivorus*.

*F. bondrée* *huppee* of Ja

Gen. 4. *Buteo* of Bechstein.—Wings long, the tail equal, the bill curved at its base, tarsi feathered nearly to the toes.

*Falco pinnatus*.

*F. buteo*.

Gen. 5. *Circus* of Bechstein.—Tarsi elevated; a kind of collar about their neck, which is formed by the ends of the feathers which cover their ears.

*Falco pygargus*.

*F. cyaneus*, *albicercus*.

*F. rufus*.

Gen. 6. *Serpentarius* of Cuvier.—*Gyroperanus* of Illiger. Tarsi double the length of any of the preceding, and entirely covered with feathers; its beak is hooked and cleft; its eye-lashes prominent; and all the details of its anatomy place it in its proper rank. The tarsi are escutcheoned; its toes proportionally short; the circumference of the eye divested of feathers; it bears a long stiff crest on the occiput, and the two mean feathers of its wings surpass the rest.

*Falco serpentarius*.

Division II.—NOCTURNI.—Striges: acie directa.

The owls have, besides other characters drawn from the size of the head, large eyes which are surrounded by a circle of hackled feathers; the pupil so large that it allows the sun's rays to dim the eyesight. Their cranium is thick, but of a light texture, and has large cavities which communicate with the ear and probably augment the sense of hearing. But the apparatus for flying is not very much calculated for effecting an extraordinary force; the forked bone is incapable of much resistance; their feathers have soft vanes covered with delicate down, so that they do not make the least noise in flight. Their gizzard is very muscular, although their prey is entirely animal, consisting in mice, small birds, &c., it is preceded by a large crop. The cæca are long and divided at the bottom. Divided into genera according to their crests or horns, the size of their ears, the extent of the circle of feathers about their eyes, and some other characters.

Gen. 1. *Otus* of Cuvier.—This genus is composed of owls that have two crests of feathers upon their forehead which they elevate at pleasure. The ear extends from the beak in a semicircular form to the top of the head, and is furnished before with a membranaceous operculum.

*Strix ascalaphus* of Savigny; *hibou* of Cuvier.



Gen. 2. *Ulula* of Cuvier.—Chouettes. Comprising species which have the bill and the ear of the otus but not their horns.

*Strix liturata* of Retzius.

*S. nebulosa* of Gmelin.

Gen. 3. *Strix* of Savigny.—*Rostro directo*. The species of this genus have the ears of the otus, which are provided with an operculum still more simple, but their bill is elongated and not curved at the point. No horns.

*Strix fluminea*.

Gen. 4. *Syrnium* of Savigny.—Chato-huans. They have the disk of hackled feathers and the little collar, like the preceding, but the ear is reduced to an oval cavity which does not occupy half of the height of the cranium.

*Strix aluco* et *stridula* of Linné.

Gen. 5. *Bubo* of Cuvier.—Duco. With the ear very small and the disk of feathers less marked than the *syrynium*, but the horns are present.

*Strix bubo*.

Gen. 6. *Noctua*.—They are destitute of the horns and of the sunken and well-defined ear; the opening being oval and scarcely inferior in point of size to that of other birds; the disk of hackled feathers is smaller and less complete than in the *bubo*; toes feathered.

*Strix nyctea* of Linné.

*S. passerina*, *pygmaea* of Bechstein.

*S. passerina* of Meyer and Wolf.

*S. cayennensis* of Gmelin.

*S. torquata* of Daudelus.

*S. nudipes* belongs to a different genus.

Gen. 7. *Surnia* of Dumeril.—Chouettes eperviers. Noctæ with densely feathered toes and a long graduated tail.

*Strix funerea*.

*S. hudsonia*.

*S. uralensis*.

*S. occipitina*.

All these species are very ill defined.

Gen. 8. *Scops* of Savigny.—Ears level with the head; the disks imperfect; toes naked; with horns like those of the *bubones* and *otus*.

#### ORDER II.—PASSERES.

The common character of the *passeres* is purely negative; for it embraces all those birds which are neither swimmers, waders, climbers, rapacious, nor gallinaceous. Yet, upon comparison, we presently perceive a great resemblance of structure between them; but such a multitude of particulars enter into the composition of this similitude that it is not practicable to embody it in words so that the terms may be clear and striking. They have not the violence of the birds of prey, nor the determinate diet of the gallinaceous fowls or of the water-fowl. Insects, fruit, grain, by turns, furnish them with nourishment; the grain so much more exclusively as their bill is thick; those which have that instrument thin and slender feed on insects, whilst those which have it strong pursue the small birds. Their stomach is in form of a muscular gizzard; they have in general two very small cæcal appendages. Among these birds we meet with the songsters, and those which have the inferior larynx of the greatest complexity. Their sternum has commonly only one notch on each side of its inferior edge, yet it has two among the rollers; but it is entirely wanting in the martlets and the trochili. We

shall divide them, in the first place, according to their feet, but in the next we shall have recourse to their bill.

Family 1. *LANII*.—*Rostro utrinque cum sinu*.

This family has the bill notched on each side near the tip. Most of the genera pertaining to this family feed on insects, though the greater part of them eat berries and other kinds of fruit occasionally.

#### Group 1.

Gen. 1. *Lanius* of Linne.—Bill conical or compressed, and more or less hooked at the end. The peculiarity of this genus consists in having the bill triangular at the base and compressed laterally.

*L. excubitor*.

*L. E. minor*.

*L. collurio rufus* et *pomeranus* of Gmelin; *ru-tilus* of Latham; *ruficollis* of Shaw.

*L. collurio* of Gmelin.

Gen. 2. Have the crest of upper mandible straight, and hooked only at the point. They are all foreign birds, and their form passes by insensible degrees to that of the *fauvettes* with a thin bill.

*Lanius Canadensis*.

*L. collurio melanocephalus*.

*L. dolius*.

*Turdus cirrhatius*.

Gen. 3. Have the bill thinned and weakened by degrees, so that it is impossible to distinguish them from the blackbirds.

*Lanius olivaceus*.

*L. barbareus* of Gmelin.

*L. gutheralis* of Daudelus.

Gen. 4. Bill straight and very strong; lower mandible inflected.

Gen. 5. *Vanga* of Buffon.—Bill large; very much compressed throughout; its point remarkably hooked, and that of the lower mandible recurved upwards.

*Lanius curvirostris* of Gmelin.

Gen. 6. Bill straight and thin; remarkable by their crests of elevated feathers.

*Lanius plumatus*.

*L. pipra albifrons*.

Gen. 7. *Ocypterus*. Bill conical, rounded on every part, without crest, scarcely arched at the tip, with a very fine point; slightly notched on each side. Feet rather short, and the wings as long or longer than the tail, which gives them the same flight as swallows.

*Lanius leucorhynchus* of Gmelin.

*L. viridis*.

Gen. 8. *Barita* of Cuvier.—The name of an unknown bird, importing something relative to weight. The *barita* has the bill conical, round at its base, parting the feathers of the forehead by a circular notch; dorsum round, compressed at its sides, with a hooked point, notched laterally.

*Coracias varia* of Gmelin; *gracula varia* of Shaw.

*C. tibicen* of Latham; *U. tibicen* of Shaw.

*C. graculina* of Whyte.

*C. strepera* of Latham.

*Paradisæa viridis*.

Gen. 9. *Paris* of Cuvier.—Name of an unknown bird, formed from *ψαρω*, to shave, expressive of its swimming or swallow-like flight. Bill conical, very large, and round at its base, but not forming a notch in the front of the head. Its tip is slightly compressed and hooked.

*Lanius cayanus* of Gmelin.

Gen. 10. *Graculus*, Greek name of an ash-colored bird. Bill less compressed than in the *lanius*; its upper mandible is sharp, evenly arched in its whole length; its commissure is somewhat more arched; the feathers which sometimes cover their nostrils give them a certain relationship to the crow; but the notch in their bills separates them widely from that genus. Three or four species of this genus are of an ash-color, which thus far makes good the meaning of the name being formed by a metalepsis from *γλαυκος*.

*Corvus papuensis* of Gmelin.

*C. nova* of Guinea.

Gen. 11. *Bethyllus* of Cuvier.—Name of an unknown bird. Bill thick, short, embulged in every part; slightly compressed towards the end.

*Lanius ceverianus* of Shaw; *picus* of Latham.

### Group 2. *Tanagræ* of Linné.

Bill strong, triangular at its base, slightly arched at its ridge, notched towards the end; wings and flight short; remarkable for their colors.

*Bill short.*

*Tanagra violacea.*

*T. pipra musica.*

*Bill inflated.*

*T. magna.*

*T. atra.*

*Bill broader than high.*

*T. tatao.*

*T. tricolor.*

*Motocilla velia* of Linné.

*Bill arched, sharp.*

*T. cristata.*

*T. negerrima.*

*Bill with prominent tooth on each side.*

*T. Mississippiensis.*

*T. vulre.*

*Lower mandible with its branches inflated behind.*

*T. jocapa.*

*T. Brasilia.*

### Group 3. *Muscicapæ* of Linné.

Bill depressed horizontally, furnished with hairs at the base, and its point more or less hooked and notched.

Gen. 1. *Tyrannus* of Cuvier.—Bill straight, long, very strong; upper ridge straight, blunt; its point suddenly hooked.

*Lanius nilenga* of Gmelin.

Gen. 2. *Muscipeta* of Cuvier.—Bill long, very much depressed; breadth twice the height even at its base; ridge very obtuse, nevertheless distinct; the edges somewhat in an oval curve; the lip the notch not well marked, with long hairs or whiskers at the base of the bill.

*M. aurantia.*

*Todus macrorhynchus* of Latham.

*T. platyrhynchus.*

Gen. 3. *Muscicapæ* of Cuvier.—Bill straighter, and the mustachios shorter than in the *muscipeta*; but it is still more depressed, with ridge well marked above; edges straight, somewhat hooked at the point.

*M. grisola* of Gmelin.

*M. atricapilla.* This bird was well known to the ancients under the names of *sycahis* (*συκαλῖς*, from *συκη*, a fig), and *ficedula* (*figus* and *edo*).

Gen. 4. *Gymnocephalus* of Geoffroy.—Nearly with the bill of the *tyrannus*, except that the ridge is rather more arched; and a great portion of their face is stripped of its feathers.

*Corvus cabrus* of Gmelin. Cayenne.

Gen. 5. *Cephaloptera* of Geoffroy.—Base of the bill furnished with elevated feathers, which, spreading above, produce a broad tuft in form of a parasol.

*C. ornatus* of Geoffroy, about the size of a jay. America.

Gen. 6. *Gymnoderus* of Geoffroy (*γυμνος*, bare, and *δερμα*, neck).—Bill somewhat stronger than the *ampelis*, but the neck is in part naked, and the head is covered with velvet feathers.

*Gracula nudicallis*; *St. Corvus nudus*; *gracula fetida* of Gmelin.

Gen. 7. *Edolus* of Cuvier.—Related to the long series of catchflies; bill depressed, and notched at the end; its upper ridge distinct; distinguished by their mandibles, which are slightly arched their whole length; nostrils covered with feathers; they have besides some long hairs, which constitute their whiskers.

*Lanius forficatus* of Gmelin.

*L. Malabaricus.* *Cuculus Paradisens*

*L. cærulescens.*

*Corvus balicapus.*

*Le dronyalon.*

*Le drongo bronze.*

Gen. 8. *Turdus* of Linné.—Bill compressed and arched; but its point is not hooked, and its arches do not produce denticulations so strong as in the shrikes, though the passage from one to another be very gradual.

*T. merula* of Linné.

*T. torquatus.*

*T. leucurus.*

*T. saxatilis.*

*T. cyanus.*

*T. solitarius.*

*T. viscivorus.*

*T. pilaris.*

*T. musicus.*

*T. iliacus.*

*T. polyglottus.*

*Paradisæa gularis* of Latham; *nigra* of Gmelin. The singularity and incomparable beauty of its plumage entitled this bird to a place among the birds of Paradise.

### Group 4.—*Ampelides*.

Bill depressed like the catchflies in general, but somewhat shorter in proportion, very wide and slightly arched.

Gen. 1. *Piuhau*.—Bill strong and sharp; food insects; fly in flocks.

*Muscicapæ rubricollis*, common *piuhau*.

*Coracias militaris* of Shaw, great *piuhau*.

*Ampelis cinerea.*

Gen. 2. *Ampelis*.—Bill somewhat weaker. Besides insects they search after berries and soft fruits.

*A. carnifera* of Linné.

*A. pempactera* of Linné.

*A. cotinga.*

Gen. 3. *Ceblepyris* of Cuvier.—*Κεβληπυρίς*, *κεβλη*, in the Macedonian dialect, a head, *πυρίς*, from *πυρ*, fire. Distinctive characters consist in the shafts of the rump feathers being somewhat prolonged, stiff, and sharp.

Gen. 4. *Bombycivora* of Temminck.—Shaft of the secondary quills enlarged at the tip into an oval disk, which is smooth and red.

*Ampelis garrulus* of Linné.

Gen. 5. *Procnitis* of Hofmannsegger.—*Προκνίτις*,



a kind of fig. Bill weaker and more depressed than in the ampelis; gape reaching as far as the eyes.

*Hirundo viridis.*

*Ampelis carunculata.*

Gen. 6. *Pyrrho.* Corax of Cuvier.—Bill compressed, arched and notched like the turdi, but their nostrils are covered with feathers like the crows, to which they have been usually assigned.

*Corvus pyrrho, corax* of Linné.

Gen. 7. *Le sicrins* of Vaill.—Distinguished by three shafts without vanes, as long as the body, which it bears upon each side, among the feathers that cover the eye.

#### Group 5.

Gen. 1. *Oriolus* of Linné.—Bill like that of the turdi, and is somewhat stronger; its feet are proportionally shorter.

*O. galbula* of Linné and Gmelin.

*O. melanocephalus.*

*O. chinensis.*

*O. golden oriole.*

*O. le coudougnan.*

Gen. 2. *Myothera*.—Recognised by their long legs, and their short tail; live upon insects, principally ants.

*Corvus brachyurus.*

*Turdus cyanurus* of Latham and Gmelin.

*Corvus* of Shaw.

*Bill strong and arched.*

*Turdus rex* of Gmelin. *Corvus grallarius* of Shaw.

*T. tinicees, le grand beffroi.*

*Bill straighter, but still more strong.*

*Turdus, calma.*

*T. formicivorus.*

*T. lineatus.*

*Bill thin and sharpened, tail striated.*

*Turdus, bambla.*

*T. cantans.*

Gen. 3. *Cinclus* of Bechstein.—Bill compressed, straight, mandibles of an equal elevation almost linear, sharpened towards the point, upper one scarcely arched.

*Sturnus cinclus* of Linné. *Turdus cinclus* of Latham.

Gen. 4. *Philedon*.—Bill compressed, slightly arched in its whole length, notched at the end, nostrils large and covered with a cartilaginous scale, tongue terminated by a pencil of hairs.

*Prominence upon the bill.*

*Merops, corniculatus.* Latham and Shaw.

*M. monachus.*

*Corvus, paradoxus.*

Gen. 5. *Gracula* of Cuvier.—Martins, a genus related to the turdus; bill compressed, very slightly arched, with a shallow notch on each side; its commissure forms an angle, as in the starlings. Almost all the feathers of the head are straight; a naked space around the eye: manners of the starlings, and fly like them in large flocks.

*Paradisaea heistis* of Gmelin. *Gracula heistis* Latham and Shaw. *Gracula gryllivora* of Daud.

Gen. 6. *Mænura* of Shaw.—Their magnitude has some relation to the gallinacea, but they manifestly belong to the passerines by their separate toes (except the first joint of the external and of the middle), by their triangular bill at its base, elongated, somewhat compressed, and notched towards its extremity; the membranous nostrils are large, and in part covered with feathers like the jays. In the tail of the male we observe three sorts of feathers entering into its composition, to wit, twelve ordi-

nary very long ones, with hackled and spreading vanes, two more in the middle furnished on one side only with a stiff beard, and two outer ones bent in the form of an S, or like the horns of a lyre; the internal vanes, which are large and stiff, represent a broad riband; the external are very short, and do not widen except at the point. New Holland.

#### Group 6. *Pipra* of Linné.

*Externa pare digitorum invicem junctis.* Bill compressed, higher than broad, notched with large nasal fosses; tail short: they are connected in some respects with the myotheræ; distinguished from the other genera of this family by the two outer toes being united almost half their length.

Gen. 1. *Rupicola*.—Large, and carry upon their head a double crest of vertical feathers, disposed like a fan, adult males distinguished by their orange color.

*Pipra rupicola.*

*P. Peruviana.*

Gen. 2. *Pipra*.—Small, and remarkable for the liveliness of their colors.

*P. pareola.*

*P. superba.*

*P. leucocephala.*

*P. aureola.*

*P. serena.*

*P. guthmalis.*

*P. leucocapilla.*

*P. manacus.*

#### Family 2. ROSTRO GRACILI.

A very numerous family, recognised by their straight bill, thin, and similar to an owl; sometimes, when it is slightly depressed at the base, they approach to the catchflies; when it is compressed, and its point is recurved a little, they approximate the shrikes with a straight bill.

Gen. 1. *Motacilla*.—Les traques; saxicola of Bechstein. Bill somewhat depressed, and somewhat broad at the base, thereby related to the last group of catchflies.

*M. rubicola.*

*M. rubetra.*

*M. œnanthe.*

Gen. 2. *Sylvia* of Wolf and Meyer.—*Ficedula* of Bechstein. Bill little straighter at the base than in the preceding.

*M. rubicola.*

*M. suecica.*

*M. phœnicurus.*

*M. Gmelin, erithacus* of Gmelin.

Gen. 3. *Curruca* of Bechstein.—Bill straight, thin throughout, somewhat compressed before; the upper mandible curved a little towards its point.

*M. luscinia.*

*M. philomela* of Bechstein. Found in the eastern part of Europe, somewhat larger, breast slightly varied with gray shades.

*Tardus, arundinaceus* of Linné.

*M. arundinacea* of Gmelin.

*M. salicaria* of Gmelin.

*M. næria* of Allen.

*M. schœnobœnus*, a variety of the last with a spotted breast.

*M. atricapilla* of Linné.

*M. orphea* of Tem.

*M. silvia* of Linné.

*M. curruca* of Linné.

*M. passerina* of Lath.

*M. nisoria* of Bechstein.

Gen. 4. *Accentor* of Bechstein.—Bill thin, but more exactly conical than the rest of the motacillæ; edges somewhat torn.

*M. alpina*.

*M. modularis*.

Gen. 5. *Regulus* of Cuvier.—Bill perfectly conical, and very sharp, and when it is viewed from above it appears somewhat concave at its edges.

*M. regulus* of Linné.

*M. trochilus* of Linné

*M. hypolaïs* of Bechstein.

Gen. 6. *Troglodytes* of Cuvier.—Bill thinner than the last, and slightly arched.

*M. troglodytes*.

Gen. 7. *Motacilla*.—Add to a bill still finer than that of the other fauvelles, a long tail, which they move up and down without ceasing; tall legs; and wing-coverts which are long enough to cover the wing when folded, which give them a certain relationship to the grallæ.

*Motacilla cinerea*.

*M. alba*.

Gen. 8. *Budytes* of Cuvier.—Join to the other characters of the wagtails a nail of the great toe elongated and bowed, which approximates them to the anthus. They frequent the pasture grounds, and chase the insects in flocks.

*Motacilla flava*.

Gen. 9. *Anthus* of Bech.—Bill thin and notched.

*Pipi. Alauda trivialis* et minor of Gmelin; *anthus arboreus* of Bechstein.

*Alauda pratensis* of Gmelin; *anthus pratensis* of Bechstein.

### Family 3. ROSTRO IN CAPUT PROFUNDISSIME FISSO.

A numerous family, but well distinguished from all the rest by its beak, which is short, wide, flattened horizontally, slightly hooked at the tip, without notch; the gape of the mouth is very wide, that they may the more easily swallow the insects which they pursue on the wing.

#### Group *Hirundines*.

Comprehends those genera which are remarkable for their compact plumage, the extreme length of their wings, and the celerity of their flight.

Gen. 1. *Apus* of Cuvier.—*Cypselus* of Illiger. Of all birds these have the longest wings in comparison with their dimensions; tail forked; feet very short; great toe directed before like the otter; mean and outward toes have each three phalangeal bones like the internal.

*Hirundo apus* of Linné.

*H. mella* of Linné.

Gen. 2. *Hirundo* of Cuv.—Feet and the sternon enlarged as in the greater number of the passerines.

*Hirundo urbana*.

*H. rustica*.

*H. riparia*.

*H. esculenta*. Le Salangane.

Gen. 3. *Caprimulgus*.—Bill more cloven than the rest of this family; furnished with strong whiskers; nostrils in form of small tubes; eyes large.

*C. Europæus*.

*C. grandis*. America. Size of an owl.

*C. Virginianus*.

*C. Carolinensis*.

*C. Jamaicensis*.

*C. rufus*.

*C. semitorquatus*.

*C. acutus*.

*C. Cayenensis*. } Tail forked, a sign among many  
*C. urcatus*. } of a relationship to the swallows. Nail of the middle toe  
*C. pastoralis* } denticulated.

### Family 4. ROSTRO PLERUMQUE FORMA CONI.

Comprehends those genera with a strong bill, more or less conical, and without a notch; they live exclusively upon grain, so that their bill is of necessity short and thick.

#### Group 1.

Gen. *Alauda*.—Distinguished by the nail of their great toe, which is straight, strong, and a good deal longer than the rest; they are granivorous, scratch the earth in search of food, nidificate upon and confine themselves chiefly to the ground. The far greater number of them have the bill straight, moderately large, and pointed.

*Alauda arvensis*.

*A. cristata*.

*A. arborea*, *memorosa*. Distinguished from the last by a white streak about the head. Bill as large as it may be in order to be in accordance with the leading character of this family.

*A. calandra*. *Alauda tatarica*, *mutabilis*, *tanagra sibirica* of Gmelin. Plumage of the full-grown bird is black, waved above with gray. Mistaken for different species, because the younger ones pass through several mutations of plumage before they arrive at their adult condition. Bill elongated, somewhat compressed and arched.

*A. Africana*. A bird very common in the sandy plains of Africa, from the end of that quarter to the other.

#### Group 2. *Pari* of Linné.

Gen. 1. *Parus*.—Bill fine, short, conical, straight, furnished with small hairs at the base; nostrils concealed underneath the feathers. The peculiar habits of this genus will be recognised by referring to the article *PARUS* of this work.

*Parus major*.

*P. ater*.

*P. palustris*.

*P. cæruleus*.

*P. cristatus*.

*P. caudatus*.

Gen. 2. *Les moustaches* of Cuvier.—Bearded titmouse. They differ from the parus in having the upper mandible recurved at its point somewhat over the other.

*Parus biarmicus*.

Gen. 3. *Les Remiz* of Cuvier.—They have the bill thinner and more pointed than the parus; and they employ more skill in the construction of their nests. Since there appears to be a decided difference in their habits, with respect to the fabrication of their nests, it would be desirable to elicit, from some part of their conformation, a characteristic of a more accurate limitation than the comparative acuteness of their bill.

*Parus pendulinus*.

Gen. 4. *Emberiza* of Linné.—Well distinguished by their conical bill, which is short, straight, and has the upper mandible narrower than, and lodging within the lower; upon the palate there is a hard prominent tubercle.

*Emberiza citrinella*.

*E. cia*.

*E. cirrus*.

*E. schœnielus*.

*E. nivalis*.



*E. miliaria.*  
*E. hortulana.*

Group 3. *Fringilla* of Linné.

Bill conical, more or less thick at its base, but its commissure is not angular. They live generally upon grains, and are for the most part voracious and mischievous creatures.

Gen. 1. *Ploceus*, *πλοκευς*, a weaver.—The size of their bill would entitle them to a place among the cassici, did not the straight commissure of the bill interpose. The major part of the upper mandible is slightly embulged. The greater number of these birds, which inhabit the old continent, build their nests with great art, and interweave them with the fibres of herbs; which circumstance has induced Cuvier to call them by a name implying the nature of its texture.

*Loxia Philippina* of Linné.  
*L. socia* of Latham.

*Oriolus niger*, *oriolus oryzivorus*, *corvus Surinamensis* of Gmelin.

*Oriolus textor* of Gmelin.  
*Fringilla erythrocephala*.  
*Loxia pensilis* of Sonn.

Gen. 2. *Pyrgita* of Cuvier, *πυργίτα*, passer.—They have a bill somewhat shorter than the preceding, conical, and only embulged at the point.

*Fringilla domestica*.  
*F. montana*.

Gen. 3. *Fringilla* of Cuvier.—Bill somewhat more arched than in the *pyrgita*, stronger and of greater length than that of the *carduelis*. Manners more lively, and their notes more varied than the song of the *pyrgita*.

*Fringilla cœlebs*.  
*F. montifringilla*.  
*F. nivalis* of Brisson.

Gen. 4. *Carduelis* of Cuvier.—Bill exactly conical, without being embulged at all at the point. They live upon grain.

*Fringilla carduelis* of Linné.  
*F. psittacea* of Latham.  
*F. mezza* of Edwards.  
*F. coccinea* of Vieill.

Gen. 5. *Linaria* of Bechot.—Bill exactly conical, but shorter and more obtuse than that of the *carduelis*. They feed upon the seeds of herbs and plants.

*Fringilla linaria* of Linné.  
*F. cannabina*.  
*F. spinus*.  
*F. citrinella* of Linné.  
*F. serinus*.  
*F. Canaria* of Linné.

Gen. 6. *Vidua* of Cuvier.—With the bill of the *linaria*, sometimes a little more enlarged at its base. Diagnostic: Some of their tail-coverts (uropygium) in the males exceedingly elongated.

*Emberiza paradisea*.  
*E. longicauda*.

We pass from these without any assignable intermedium to

Group 4. *Loxia*.—Rostro maximo.

Gen. 1. *Coccothraustes*, *κοκκοθ*, grain, *θραυσ*, to break.—Bill exactly conical, and only distinguished by its extraordinary size. It might, perhaps, seem unnecessary to remind the reader of those maxims which were laid down in their proper place; namely, that, whenever we speak of relative proportions, an analogy is always supposed. In this instance we derive our notion from a comparison

of this bird's bill, as to its actual admeasurement; if, for example, the length of the bill in this genus be four digits, and its largest diameter three, it will be found that the same parts in none of the other genera will have ratio of so small a majority.

*Loxia coccothraustes* of Linné.

*L. chloris* of Linné.  
*L. petronia* of Linné.

Gen. 2. *Pitylus* of Cuvier.—Bill very large, somewhat compressed, arched above, and has sometimes a prominent angle at the middle of the termination of the upper jaw.

*Loxia grossa*.  
*L. erythromelas*.  
*L. portoricensis*.

Gen. 3. *Pyrrhula* of Cuvier.—Bill rounded, inflated, and embulged in every direction.

*Loxia pyrrhula* of Linné.  
*L. lineala*.  
*L. minuta*.  
*L. collaria*.

Gen. 4. *Loxia* of Brisson.—Bill compressed; both mandibles generally curved, their points crossing each other, sometimes on one side and sometimes on the other.

*Loxia curvirostra*. There are it would seem two varieties of this species, distinguished by their size and their voice; hence we have the *loxia curvirostra* and the *loxia hystiopsittacus* of Bechstein.

Gen. 5. *Corythus* of Cuvier.—Bill embulged in every part, its point bent over the lower mandible.

Gen. 6. *Loxia enucleator* of Linné.—To this genus we might assign the *loxia psittacea* of Latham; the *loxia flamenco* of Sparman appears to be only a variety of the enucleator.

Gen. 7. *Colius* of Gmelin.—A genus very much akin to the preceding. Their bill is short, thick, conical, and somewhat compressed, and the two mandibles are arched without surpassing one another in length; the feathers of the tail are graduated and very long; their great toe has the faculty of directing itself before like the rest of the toes; their plumage is fine and silky, and generally of an ash color. The *C. nayensis* and the *strictus* are of the same species, as are also the *C. erythropus* and the *Capensis*.

Gen. 8. *Glaucoptis* of Forster.—Callæas of Bechstein. Bill very large, moderately long; upper mandible embulged, and furnished at the base with a fleshy caruncle.

*Glaucoptis cinerea* of Latham. Completely black; about the size of a magpie; tail graduated. Found in New Holland.

Gen. 9. *Buphaga* of Brisson.—Bill of a moderate length, cylindrical at the origin, but inflated in both mandibles at its extremity, which terminates in a very flat point; this serves to compress the skin over in order to make the bots spring from their lodgements.

*B. Africana*

Group 5. *Cassici* of Cuvier.

Bill large, exactly conical, thick at the base, remarkably acuminate at the point; nostrils small, round, and lateral; the commissure of the mandibles in a zig-zag line. These birds are natives of America, and in point of manners resemble our starlings; they live in flocks, and build their nests near each other.

Gen. 1. *Cassicus* of Cuvier.—Bill ascendant upon the forehead and divides the feathers in a large semicircular notch.

*Oriolus cristatus.*

*O. hemorrhous.*

Gen. 2. *Icterus*.—Bill dividing the feathers of the forehead in a short notch, arched in its whole length.

*Oriolus varius.*

*O. cayanus.*

*O. chryscephalus.*

*O. dominicensis.*

In our travels in California we had often an opportunity of seeing a species of this genus, running in flocks about the ascents and declinations of the plains in that country, resembling larks in their gait and attitude; they were at first mistaken for such by our officers, till some of them being killed corrected the error.

Gen. 3. *Xanthornus*.—Differ from the *icterus* in having the bill quite straight.

*Oriolus icterus.*

*O. minor tanagra bonariensis.*

*O. Phœniceus.*

*O. Americanus.*

*O. leucopterus.*

There are several other species of this genus found in the continent and islands of America, but the enumeration of these will suffice to stand as specimens for the exemplification of the generic difference.

Gen. 4. *Dacnis* of Cuvier.—Represent the *Xanthornus* in miniature by their sharp and conical bill. *Atotacilla caryana* of Gmelin. In conformity to our definition of a genus, some other character must be looked for, though nature, by creating so great a disparity in the size, seems to have drawn a very broad line between this and the other genera of this group.

Gen. 5. *Sturnus* of Linné.—Differ from the *Xanthornus* in having the bill depressed towards its point.

*Sturnus vulgaris* of Linné.

*S. Capensis.*

*S. militaris.*

*S. dudoricanus, alauda magna* of Gmelin.

Gen. 6. *Sitta*.—Bill straight, prismatic, and pointed, with which they divide the bark, in order to get at the worms beneath it, like the woodpeckers, but their tongue is not elongated.

*S. Europea.*

Remark.—It is observed by Cuvier that we cannot find a character which will accurately distinguish the last family from that of the corvi which possess the same internal structure, the same external organs, and are not to be discriminated from those of that family except in the general superiority of size which gives them an ascendancy over them. We must, therefore, for the sake of convenience, be contented with laying down superiority of size as the characteristic of this family.

#### Family 5. AVES GRANDIORES.

##### Group 1. *Corvi* of Linné.

Bill strong, more or less flattened at the edges; nostrils covered with stiff feathers directed before. These are very crafty birds, enjoy a fine sense of smell, evince a general disposition to seize upon every thing that may fall in their way, and hide it up, though useless to themselves.

Gen. 1. *Corvus*.—Bill proportionately stronger than in the following genera; ridge of the upper mandible more arched; tail round or square

*Corvus corax* of Linné.

*C. corone* of Linné.

*C. frugilegus* of Linne

*C. cornix.*

*C. monedula.*

Gen. 2. *Pica* of Cuvier.—Less than the last, upper mandible more arched than the lower; tail long and graduated.

*Corvus pica* of Linné.

*C. ventralis* of Sh.

*C. erythrychnos.*

*C. rufus.*

Gen. 3. *Garrulus* of Cuvier.—Both mandibles somewhat elongated, and terminated suddenly in an almost equal curvature. When their tail is graduated it is somewhat lengthened; and the feathers of the forehead, loose and hackled, rise more or less upon its neck.

*Corvus glandarius.*

*C. eristatus.*

*C. stelleri.*

*C. auritus.*

Gen. 4. *Caryocatactes* of Cuvier.—Both mandibles equally pointed, straight, and without curvature.

*Corvus caryocatactes* of Linné.

Gen. 5. *Temia* of Vaill.—With the port and air of the pies, they have the bill raised, and furnished at its base with velvety feathers like the birds of paradise. Only one species known, a native of Africa, and of a bronze green color.

##### Group 2. *Coraciæ* of Linné.

Bill strong, compressed towards the end, which is pointed and somewhat hooked; nostrils oblong, placed at the ends of the feathers, and not covered by them; the feet are strong and short.

Gen. 1. *Coracias*.—Bill straight; height exceeding the breadth.

*Coracias garrula.*

*C. viridis* of Vaill.

It will perhaps be found expedient hereafter to insert an intermediate genus, embracing such of the rollers as have long tails, viz. *Coracias caustata*.

Gen. 2. *Colaris* of Cuvier.—Rolls. Differ from the last by having a shorter bill, more arched, and also widened at the base so as to be nearly as broad as it is high.

*Coracias orientalis.*

*C. Madagascariensis.*

*C. atra* of Lath.

Gen. 3. *Eulabes* of Cuvier.—Mamates. Bill nearly like that of the *colaris*, but their head is stripped of feathers in some places which are filled with fleshy prominences; the velvety feathers reach to the nostrils, as in the birds of paradise.

*Gracula religiosa* of Linné.

##### Group 3. *Paradisææ*.

Bill straight, compressed, strong, without notch; nostrils covered. Cuvier ascribes the velvet-like texture of the feathers which cover the nostrils to the influence of the climate which these birds inhabit. The manifold development of these feathers, by a reflective operation upon the undulations of light, sheds forth a metallic lustre. A disposition to a curious development is exhibited in various parts of the plumage. Some of the birds of paradise have the feathers of their sides remarkably hackled and lengthened into pannicles which reach beyond the body.

*Paradisæa apoda.*



*P. rubra*. Plumy pannicles of the sides are of a fine red; shafts wider and concave on one side.

*Paradisæa regia*.

*P. magnifica*. Chesnut above, green beneath and upon the sides; the feathers of the wings yellow; a tuft of straw colored feathers upon each side of the neck; another of yellow ones opposite the fold of the wing. Some of the species have the feathers hackled, but short, upon the sides, and are destitute of the shafts upon the rump.

*P. aurea*. Black; a breastplate of gilded green upon the throat; three feathers of each ear prolonged into long shafts, which terminate in a small disk of gilded beard-feathers.

Others have neither shaft-feathers nor the feathers of the sides lengthened.

*P. superba*. The scapulars are nevertheless prolonged so as to form a sort of mantling over the wing when closed, the feathers of the breast hanging down in a kind of cote d'armes, and forked. All the plumage is black, except this pectoral cote, which is of a brilliant green with a brown edge.

*P. aurea* of Shaw; *oriolus surreus* of Gmelin. Without any development of the feathers, and chiefly recognised by the velvet nature of the nasal plumes. Male of the most lively orange

#### Family 6. *ROSTRO TENUI.*

Comprehends the residue of the birds which belong to the first division. Bill thin, lengthened, more or less arched throughout its length, and without a notch.

##### Group 1. *Upupa*.

Gen. 1. *Fregilus* of Cuvier.—Nostrils covered with feathers directed forwards; this makes them to be related to the crows, which they resemble in some respects in their manners.

*Corvus graculus* of Linné.

*C. affinis* of Latham.

Gen. 2. *Upupa*.—An ornamental tuft on the head, consisting of a double row of feathers, which are elevated and depressed at the pleasure of the bird.

*Upupa epops* of Linné.

*U. Capensis*.

Gen. 3. *Promerops* of Brisson.—No tuft upon the head; tail very long; tongue extensible and bifurcated, which enables them to live upon the juices of flowers.

*Upupa promerops*. *Merops cafer*.

Gen. 4. *Epimachis* of Cuvier.—Bill like that of the upupa and promerops; scaly or velvet-like feathers covering their nostrils as in the birds of paradise: they come from the same countries, and glitter with the same brightness of plumage. Their sides are furnished with feathers which are more or less prolonged in the male.

*Upupa magna* of Gmelin. *U. superba*.

*Epimachis promerfil*.

##### Group 2. *Scandentes*.

Gen. 1. *Certhia*.—Recognised by the feathers of the tail being used and ending in a point like those of the woodpeckers.

*Certhia familiaris*.

*C. cinnamomea*.

*C. spinicauda*; *mutacilla spinicauda* of Latham.

Gen. 2. *Dendrocolaptes* of Sloane.—Tail of the same nature as that of the preceding; but the bill is much stronger and wider.

*Gracula Cayenensis* of Gmelin; *gracula scandens* of Latham and Shaw.

Gen. 3. *Tichodroma* of Iliger.—Make no use of the tail in climbing, although they run about the rocks and trees like the ordinary creepers, but they climb by means of their very long nails. Bill triangular and depressed at the base, very long, and very thin.

*Certhia muraria*.

Gen. 4. *Nectarinia* of Iliger.—Tail not used, which shows that they do not climb; bill of a moderate length, arched, pointed, and compressed like that of the true climbers.

*Certhia cyanea*.

*C. cerulea*.

*C. sanguinea*.

*Merops rufus*.

Gen. 5. *Dicaeum*.—Do not employ the tail, nor climb; the bill is short, arched, not longer than the head, depressed, and widened at the base.

*Certhia erythronopes*.

*C. eruentata*.

*C. rubra*.

*C. cantillans*.

Gen. 6. *Melithreptus* of Vieillot.—Make no use of the tail; bill extremely long, bent almost in a semicircular arc.

*Certhia vestitaria*. If our memory does not deceive us this bird is called nectarinia in the translation of Kotzebue's voyages.

*C. obscura*.

*C. pacifica*.

Gen. 7. *Cinnyris*.—Soui-mangas. Tail unused in climbing; bill long and very thin; ends of the mandibles finely denticulated like a saw; tongue capable of being elongated beyond the bill, and terminating in a fork.

*Certhia splendida* of Shaw.

*C. afra* of Edw.

*C. amystina* of Vieillot.

*C. calybaea*.

##### Group 3. *Trochili* of Linné.

Bill long and thin, filled with a tongue which can be elongated like that of the woodpecker. When we examined the structure of this tongue, in some individuals brought to us at Rio Janeiro, we remarked that the base of it was hollow, and so allowed the upper part to be withdrawn within it during repose. Within the membranous stomach were found insects, which, coming to feed on the honey contained in the cups of flowers, especially of the banana, were swallowed down with it. The people of Mexico call them myrtle-suckers

##### Subdivision 1. *Rostro arcuato*.

Gen. 1. *Trochilus*.—Bill arched: some are distinguished by a prolongation of the intermediate feathers of the tail.

*Trochilus pella*.

*T. superciliosus*.

Gen. 2. Lateral feathers of the tail elongated.

*Trochilus forficatus*.

Gen. 3. Tail forked.

*Trochilus elegans*.

Gen. 4. Tail round or square.

##### Subdivision 2. *Orthorhynchus rostro recto*.

Gen. 1. Crown of the head tufted.

*Trochilus cristatus*

*T. pileatus*.

Gen. 2. Tufts upon the sides of the head.

*Trochilus ornatus*.

Gen. 3. Shafts of their primaries remarkably broad.

*Trochilus latipennis.*

Gen. 4. Tail forked; without ornaments.

*Trochilus mellivorus.*

*T. smaragdo sapharinus.*

*T. colubris* of Edw.

Gen. 5. Lateral feathers of the tail very much prolonged and broadened at the ends.

*Trochilus platurus.*

Gen. 6. Worthy to stand by itself for its extreme diminutiveness.

*Trochilus minimus.*

#### Family 7. DIGITIS JUNCTIS.

##### Group 1. *Merops.*

Guepiers. Feet short; bill triangular at its base, lengthened, slightly arched, and terminating in a short point.

Gen. 1. *Merops.*—Mean feathers of the tail somewhat elongated.

*Merops apiaster.*

Gen. 2. Tail nearly square.

*Merops philippinus.*

*M. nubicus.*

*M. erythropterus.*

*M. malambicus.*

Gen. 3. *Prionitis.*—Momots. This genus has the same feet and general appearance as the last, but differs from the *merops* in having a stronger bill, which has its edges sawed; whence the propriety of the name (*πριων*, a saw). Tongue bearded like a feather; tail graduated; the two medial feathers are stripped of their vanes, a small space not far from the end.

*Ramphastos momota* of Gmelin.

##### Group 2. *Alcedines.*

Martin Pêcheurs. Feet shorter than in the *prionitis*; bill much longer, straight, angular; tongue and tail very short. Stomach a membranous sac.

Gen. 1. Bill simply straight and pointed.

*Alcedo ispida.*

*A. afra* of Shaw; *maxima.*

*A. alcyon.*

*A. rudis.*

Gen. 2. Lower mandible embulked.

*Alcedo capensis.*

*A. atricapilla.*

*A. chlorocephala.*

*A. leucocephala.*

Gen. 3. Mandible hooked.

*Alcedo fusca* (*gigantea* of Shaw.)

Gen. 4. *Les ceyx* of Lacép.—King-fisher, with the ordinary bill, but the internal toe is wanting.

*Alcedo pudactyla* of Pall.

*A. tribrachys* of Shaw.

Gen. 5. *Todus* of Linné.—Bill flattened horizontally, blunt at the extremity; the tarsus longer; tail somewhat longer.

*Todus viridis.*

*T. cinereus* of Euler.

##### Group 3. *Buceros* of Linné.

Calaos. Bill enormous, surmounted by a protuberance as large as itself, always more or less embulked above. The form of these excrescences, which have their interior generally cellulous, varies with the age.

If, after the beautiful observation of Wildenow, we contemplate the paradigm of ornithology as a curious piece of network, and consider the groups as so many meshes respectively of that web, we

may survey the mesh or group now before us as connected by one knot with the *ramphastos*, as regards their bill; by another to the *corvi*, in their appearance and habits; and, by a third, to the *merops* and *alcedines*, touching the shortness of their feet and legs. Their tongue is small at the fundus of their throat.

*With prominences.*

*Buceros rhinoceros.*

*B. niger.*

*B. monoceros* of Shaw; *Malabaricus* of Lath.

*B. bicornis.*

*Without prominences.*

*B. javanicus.*

*B. nasutus.*

*B. nasica.*

#### ORDER III.—SCANDENTES.

*Aves ratione pedum habita scandentes.* This order comprises birds which have the outward toe directed behind, like the great toe, whence there results a firmer means of support, by which they climb with peculiar facility the trunks of trees. In denominating these birds climbers, we ought to advertise the reader that we apply this term to such as are essentially so, from a consideration of the appropriate disposition of the toes; for any one that has paid any attention to the manners of birds will have observed that the common creeper runs up a tree or a wall with as much ease as a woodpecker, though in the arrangement of the toes they differ entirely from them. Bill more or less strong and powerful. The sternum of the greater part of these genera have two notches behind, but in the *perroquets* there is but one hole, and often it is quite plain.

##### Group 1. *Galbula.*

Connected very closely to the king-fishers by their lengthened sharp bill, of which the upper ridge is distinct, and by their short feet, but the established disposition of the toes dissects them from an order to which their general figure has bound them so closely.

Gen. 1. *Galbula.*—American species, with the bill long and quite straight.

*Alcedo paradisæa*; *galbula paradisæa* of Latham.

*A. galbula.*

*Galbula ruficauda* of Vieillot.

*G. albirostris* of Latham.

Gen. 2. Bill shorter and stouter and somewhat arched; anterior toes somewhat more separate. Indian Archipelago.

*Alcedo grandis* of Gmelin; *galbula* of Latham.

Gen. 3. Bill without ridge above.

*Le grand jacamar* of Vieill.

##### Group 2. *Pici* of Linné.

This group is well characterised by a long, straight, and angular bill, compressed like a wedge at its extremity; tongue thin, armed towards the end with recurved spines, which, when thrust forward by the elastic horns of the *os hyoides*, can spring very far beyond the bill. In a species which the writer dissected, at Concepcion in Chili, these horns were traced over the crown of the head, and were seen to terminate in the right nostril among the integuments of the upper mandible. The tail is composed of ten feathers, with stiffened elastic shafts, which serve as an abutment whilst they climb the trees. Their tongue, besides its curvature, is forked, and bedewed with a viscous saliva, which is secreted by large glands; it is with-



drawn by two muscles rolled like ribands about the windpipe; in its state of retraction the horns of the os hyoides ascend under the skin over the head towards the base of the bill, as Cuvier represents the matter; but it appeared to us that in a state of repose these cornets rested in an arc of a greater circle, as we think it will appear to any one who shall be at the trouble of examining the bird when the skin is dissected off the head. The tongue consists of a sheath at the base like that of the humming-bird, and is withdrawn within itself in the lower part of the throat. Their stomach is generally membranous, as their food is chiefly insects; but they are destitute of cæcal appendages.

Gen. 1. *Picus*.—Epeiches.

*Picus martini*.

*P. viridis*. *P. canus* is also considered by some as a distinct species.

*P. major*.

*P. minor*.

Gen. 2. *Picoides* of Lacep.—One of the outer hind toes wanting.

*Picus tridactylus*.

Gen. 3. Bill slightly arched, showing some similitude to the cuculi.

*Picus auratus*.

*P. cafer*.

Gen. 4. *Picus arator*.—Runs upon the ground in search of its food. Some characteristic difference in the outward configuration must be sought by those who have an opportunity of examining this bird, since the decided distinction in its economy warrants an expectation of finding it.

Gen. 5. *Yunx* of Linné (Les Torcols).—Tongue susceptible of elongation like the woodpecker, and by the same mechanism, but without spines; bill straight and pointed, and very nearly round and without angles; tail-feathers of the usual form.

*Yunx terquilla*.

*Y. minutissima*.

### Group 3. *Cuculi* of Linné.

Bill of the middling size, very deeply divided, compressed, and slightly arched.

Gen. 1. *Cuculus*.—Bill of the ordinary stoutness; the tarsi short; the tail composed of ten feathers. Herissant attributed the neglect of incubation of the cuckoo to the position of the gizzard, which is placed further behind than in other birds, and of consequence less protected by the sternum. The cæcal appendages of these birds are very long, and their inferior larynx has only one appropriate muscle.

*Cuculus canorus* of Linné, of which *cuculus Capensis* is considered by Cuvier as a mere variety.

*C. solitarius* of Nob.

*C. radiatus* of Lonn.

Bill rather more depressed.

*C. auratus*, Vaill.

*C. lucidus*, Latham.

*C. clasi*.

Bill vertically higher.

*C. punctatus*, scolopaceus.

*C. honoratus*, Vaill.

*C. mindanensis*.

These differences being slight, it would appear over-exquisite to make distinct genera, except future observations should show that this circumstance of having the bill vertically higher is accompanied with another of easier discrimination.

Gen. 2. *Les couas* of Vaill.—They differ from the cuculus in having long tarsi. They nidificate in hollow trees, and do not borrow another bird's

nest. The reader may take this as a sample of our argument in behalf of a certain modification of the old doctrine of signatures, with this special observance, that as in language the words are signs and not resemblances of ideas, so in nature peculiarities of form are not similitudes, but certain symbols of corresponding variations in the economy of the object, which must be understood and interpreted by a careful induction of repeated observations.

*Cuculus cristatus*.

*C. cæruleus*.

*C. seniculus*.

*C. Cayanus*.

Gen. 3. *Centropus* of Illiger.—Nail of the great toe long, straight, and pointed like the larks, whence the generic name *κεντρον*, a spur, *πους*. Nestle in hollow trees.

*Cuculus, Ægyptius*.

*C. Philippensis*.

*C. Nigrorufus*.

Gen. 4. *Les courols*.—Bill short, pointed, straight, compressed, scarcely arched at the end of the upper mandible; nostrils pierced obliquely on the middle of each side; tail with twelve feathers; nestle, like the foregoing, and confine themselves to woods. It is said that they feed principally upon fruit.

*Cuculus afer*.

Gen. 5. *Indicator*.—Bill short, high, almost conical, like that of a sparrow; tail of a dozen feathers, somewhat graduated and forked; skin remarkably tough.

*Cuculus indicator*.

*C. minor*.

Gen. 6. *Les barbacous* of Vaill.—Bill conical, elongated, somewhat compressed, slightly arched at the tip; furnished at the base with hackled feathers or stiff hairs.

*Cuculus tranquillius*.

*C. tenebrosus*.

### Group 4. *Les malchohas* of Vaillot.

Bill very thick, round at the base, arched towards the point; a large naked space round the eye.

Gen. 1. Round nostrils near the base of the bill. *Malchoa vourardin*, Vaillot.

Gen. 2. Narrow nostrils near the end of the bill.

*Cuculus pyrocephalus*, Forster. Natives of Ceylon; live, it is said, upon fruits.

### Group 5. *Scythrops*.

Gen. *Scythrops*.—Bill longer and stronger than among the malchohas; hollow on each side, with two longitudinal furrows; a naked ring round the eyes; nostrils round; bill approaches that of the ramphastos; but the tongue is not ciliated, which circumstance separates them.

*Scythrops*, Novæ-Hollandiæ, Lath. *Scythrops Australasiæ* of Shaw. Size of a crow, whitish, with a gray mantle.

### Group 6. *Bucco* of Linné.

A thick bill, embulged on the sides of its base, furnished with five bundles of stiff hairs, directed forwards, one behind each nostril, one on each side of the base of the lower jaw, the fifth under the symphysis, or fork of the lower mandible; wings short.

Gen. 1. *Pogonias*.—Two well-marked notches on each side of the upper mandible, of which the ridge is flat and arched; lower mandible furrowed across; beards very strong.

*Pogonias major*, Nob.; *bucco dubius*, Gmelin.

*P. minor*, Nob.

Gen. 2. *Les barbus*.—Bill simply conical, slightly compressed; ridge flat, somewhat elevated in the middle.

*Bucco grandis*.

*B. viridis*.

*B. flavifrons*.

Gen. 3. *Tamatia*.—Bill somewhat more elongated and more compressed; the end of the upper mandible is curved upwards; head large; tail short.

*Bucco macrorhynchus*.

*B. melanoleucos*.

*B. Tamatia*.

Gen. 4. *Trogon* (couroucous).—Beard composed of bundles of hairs; bill short, broader than high, curved near its base; upper ridge arched, flat, and its ends denticulated; feet short, furnished with feathers to the toes.

*Trogon curucui*.

*T. viridis*.

*T. strigilatus*.

Gen. 5. *Crotophaga* of Linné.—Ani. Recognised by a large bill, compressed, arched, without denticulations, surmounted by a sharp vertical crest.

*C. major*.

C. ani. This species was an old acquaintance of ours while at San Blas, and was mistaken for a starling by some of our sportsmen, till the wide dissimilitude of the bill corrected an error which a similarity of size and manners had occasioned

#### Group 6. *Ramphastos* of Linné.

Bill enormous; texture light and cellular. See *RAMPHASTOS*.

Gen. 1. *Ramphastos*.—Bill larger than the head. Generally black, with bright colors under the throat.

*R. toco*.

*R. tucanus*.

*R. piscivorus*.

*R. maximus*.

Gen. 2. *Pteroglossus* of Iliger.—Bill less than the head, and covered with a solid horn.

*Ramphastos viridis*.

*R. aracari*.

*R. piperivorus*.

#### Group 7. *Psittaci*.

Bill thick, hard, solid, surrounded at the base with a membrane through which the nostrils are pierced; tongue thick; inferior larynx very complicated, and furnished on each side with a true appropriate peculiar muscle, which mechanism contributes to facilitate articulation; intestines very long, without cæcal appendages. Perhaps it would not be straining a radical similarity of orthography too far if we were to derive *ψιττακος* from *ψω*, to wet or bedew, since the drought of the parrot's mouth renders that office constantly necessary.

#### Subdivision 1. *Parrots*.

Gen. 1. *Aras*.—Cheeks bare of feathers.

Gen. 2. *Perruches* of Vaill.—Tail long.

Gen. 3. *Perruches Aras*. Naked ring round the eye.

Gen. 4. *Perruches à queue en fêche* of Vaillot. Two mean feathers of the tail surpassing the rest.

Gen. 5. *Perruches à queue élargie vers le bout*.

Gen. 6. *Perruches ordinaires*.—Tail graduated.

#### Subdivision 2. *Les Cucatoes*.

Tail short and even. This subdivision stands in need of a nomenclature to find and ascertain the several distinctions which may be collected from a consideration of the presence or absence of a crest, and of the conformation of the feathers which compose it.

Subdivision 3. *Perroquets à trompe* of Vaillot.

Tail short and square; crest composed of long and straight feathers; cheeks naked; upper mandible enormously disproportioned; lower mandible very short.

*Psittacus aterrimus* of Gmelin.

#### Subdivision 4. *Pezoporis* of Iliger.

Bill weaker, tarsi long, nails straighter, than the rest of the parrots. One species known at present, a native of New Holland.

#### Group 8. *Corythaices*.

Bill short; upper mandible inflated; a short membrane between the anterior toes; external toes often directed behind; nostrils simply pierced in the horny substance of the bill; edges of the mandibles denticulated. Though this group present an evident affinity with the gallinaceous fowls, their sternum is destitute of those large notches which are common in that order.

Gen. 1. *Corythair* of Iliger.—The bill does not remount the forehead; the head is furnished with a crest susceptible of elevation.

*Cuculus persa* of Linné.

Gen. 2. *Musophaga* of Isert.—Base of the bill forms a disk which covers a part of the front.

*Musophaga violacea* of Latham, Promerops, &c.

#### ORDER IV.—GALLINACEÆ.

Thus denominated from their relationship with the cock, who for his courage and the favor of man is entitled to stand at the head of an order which exhibits so many natural affinities. Anterior toes united at the base, and denticulated along their edges; the upper mandible vaulted; the nostrils pierced in a large membranous space at the base of their bill, and covered by a cartilaginous scale; wings short; sternum bony, diminished by two deep notches which occupy almost all the sides; crest truncated obliquely, so that the forked bone does not reach it except by a ligament. Tail more frequently fourteen feathers, sometimes seventeen, with the exception of the alectors; inferior larynx very simple, whence they are not indulged with the gift of song; gizzard strong and muscular; food deposited first in the gullet, or membranous bag hanging before.

#### Group 1.

Gen. 1. *Pavo*, from *παυς*, or *Tawos*, an onomatopœa, from their cry. Chief character derived from the coverture of the tail, which is prolonged into a radiating fan of feathers.

*P. cristatus*.

*P. bicalcaratus*.

Gen. 2. *Meleagris* of Linné (*μέλειαν γὰρ ποτ' ἀγνους ἄγαν*. Euripides). Head and neck clothed with a mammellated skin destitute of feathers.

*Meleagris gallopavo*. See *MELEAGRIS*.

#### Group 2. *Alectores*.

Tail with twelve feathers, broad, stiff, and round.

Gen. 1. *Crax* of Linné.—Bill strong, base surrounded with skin, sometimes of a bright color; head with a crest of feathers.

*Crax alector* of Linné.

*C. globicera* of Linné.

*C. rubra*.

Gen. 2. *Oupax*, from *ουπα*, tail. Bill short and thick; the membrane which covers its base, and the greater part of its head, covered with short erect feathers.

*Crax pauxi* of Linné.



Gen 2. *Penelope* of Merrem.—Bill thicker than the *Hoccos*? circle about the eyes naked, as also under the throat, and is often capable of inflation.

*P. cristata* of Linné.

*P. leucolophus*.

*P. cumanensis*.

*P. marail*. Without a crest.

Gen. 4. *Ortalia* of Marren.—Scarcely bare of feathers around the eyes and about the throat.

*Cowaca*; *phasianus* motmot of Gmelin.

Gen. 5. *Opisthocomus* of Hofman.—Head crested; no membrane between the toes.

*Phasianus cristatus* of Linné.

#### Group 3. *Phasiani*.

Cheeks bare of feathers; skin red.

Gen. 1. *Gallus*.—Head surmounted by a fleshy crest; lower mandible furnished with fleshy wattles.

*Phasianus gallus* of Linné.

*Gallus sonnerati* of Temm. Hindostan.

*G. bankiva*. Java.

*G. varius*. Java.

Gen. 2. *Phasianus*.—Tail long and graduated; its feathers folded into two surfaces.

*P. colchicus* of Linné.

*P. nyctenerus* of Linné.

*P. pictus*.

*P. argus*.

Gen. 3. *Houppferes* of Tem.—Tail of the gallus; with a crest.

*Phasianus ignitus*.

Gen. 4. *Lophophorus* of Tem.—Crest of the peacock, but the tail of ordinary birds.

*Phasianus inpeyanus* of Latham.

Gen. 5. *Crytonix* of Tem.—Great toe without any nail; tarsi without spurs.

*Phasianus cristatus*. Sparrm. *Columba cristata* of Gmelin.

Gen. 6. *Numida*.—Head naked; fleshy beard; tail short; head surmounted with a callous crest; no spurs.

*Numida meleagris*.

*N. cristata*, *mitrata*.

#### Group 4. *Tetraones*.

Red band in the place of an eye-brow.

Gen. 1. *Lagopus* of Brisson.—Legs covered with feathers, and without spurs.

*Tetrao urogallus*.

*T. tetrix*.

*T. bonasia*.

*T. cupido*, *umbellus*, *togatus*.

*T. Canadensis* *canace*.

*T. lagopus*. When we were in Kotzebue's Sound, we had many opportunities of remarking the change its mottled plumage gradually underwent in passing into a perfect white.

*Tetrao alleus*.

*T. scoticus*.

Gen. 2. *Pterocles* of Tem.—Tail pointed; toes naked.

*Tetrao aichata*.

#### Group 5. *Perdices*.

Gen. 1. *Les Francolius* of Tem.—Bill longer, more strong; tail more infolded; spurs stronger.

*Tetrao francolinus*.

Gen. 2. *Perdix*.—Bill weaker; spurs of the males simple tubercles.

*Tetrao cinereus*.

*T. rufus*.

*Perdix Græca* of Brisson; *perdix sanatiles* of Meyer.

Gen. 3. *Coturnix*.—Smaller than the perdices, with a fine bill; a shorter tail; without a red eye-brow, and with spurs.

*Tetrao* of Linné.

Gen. 4. *Perdix*.—Bill thick, shorter and more inflated; the tail rather more developed.

Gen. *Hemipodius* of Tem.—Bill compressed; a small rising under the lower mandible; destitute of the great toe.

Gen. 5. *Ortygis* of Illeg.—Toes separated down to their origin, and without membranes.

Gen. 6. *Syrhaptus* of Illeg.—Tarsi short, furnished with feathers, as are also their toes, which are very short, and are united some distance from their bases by a membrane; wings very long and sharp.

*Tetrao paradoxus*.

Gen. 7. *Crypturus* of Illeg.—Tinamus of Latham. Neck thin, very long, and clothed with feathers of a peculiar nature; bill long, slender, and flat, with a small furrow on each side; tail almost nothing; great toe merely a short spur.

*Tetrao major*.

#### Group 6. *Columbæ*.

Intermediate between the passeress and the gallinacæ. Bill vaulted; nostrils pierced in a large membranous space, and covered with a large cartilaginous scale, which forms an enlargement at the base of the bill. Toes with no other membrane between them than what arises from a continuation of their edges.

Gen. 1. *Columbi-gallinæ*.—Bill slender and flexible; tarsi tall; live in flocks.

*Columba coronatæ* of Gmelin.

*C. carunculata*.

Gen. 2. *Columba*.—Tarsi shorter than the last.

*Columba palumbus* of Linné.

*C. linia*.

*C. turtur*.

Gen. 3. *Vinaga* of Cuvier.—Bill thick, of a solid substance, laterally compressed; tarsi short; feet broad margined.

*Columba Abyssinica*.

*C. aromatica*.

*C. vernans*.

#### ORDER V.—GRALLÆ.

Base of the legs bare of feathers; tarsi generally long; the outer toe is more frequently united to the middle one by means of a membrane; sometimes it has two similar membranes; at others they are entirely deficient, and the toes are quite separate; it happens sometimes, though rarely, that the toes are margined.

#### Family 1. *ALIS BREVIDUS*.

Wings short; sternum a simple shield, destitute of the ridge; pectoral muscles very thin; muscles of the thighs and legs of an enormous thickness.

#### Group. 1. *Struthiones* of Linné.

Gen. *Struthio*.—For the external peculiarities see *STRUTHIO*. Crop enormous; a large ventricle between the crop and the gizzard; intestines voluminous; cæcal appendages long; cloaca capacious, wherein the urine is collected as in a bladder; in this respect they are unrelated to any other.

*Struthio camelus*.

*S. rhea*.

#### Group. 2. *Casuarii* of Brisson.

Wings shorter than those of the ostrich; feathers

bearded, but the secondary vane is so inconsiderable that they resemble hair.

Gen. 1. *Casuaris*.—Bill compressed laterally; head surmounted by a long protuberance, which is covered with a bony substance; the skin of the head and the upper part of the neck naked. Intestines short; cœcum small; intermediate stomach wanted.

Gen. 2. *Dromiceius*.—Bill depressed, without any helmet on the head; naked only around the eye, without caruncles.

#### Family 2. *ROSTRO PRESSO*.

Legs tall, without any great toe, or, if it be present, not long enough to reach the earth; bill of a moderate size, strong enough to bore the ground and search for worms.

##### Group 1.

Gen. *Otis* Linné.—Form bulky; upper mandible slightly vaulted; bases of the toes with small margins.

*Otis tarda*.

*O. tetrax*.

##### Group 2. *Charadrii* of Linné.

Bill compressed, enlarged at the tip; great toe deficient.

Gen. 1. *Ædicnemus*.—End of the bill enlarged underneath as well as above; the nasal furrows extended only half of its length.

*Charadrius ædicnemus*.

Gen. 2. *Charadrius*.—Nasal furrow occupying two-thirds of the length of the bill.

*Charadrius pluvialis*.

*C. morinellus*.

##### Group 3. *Tringa*.

Bill the same, distinguished by the presence of a great toe.

Gen. 1. *Squatorola* of Cuvier.—Bill like that of the *ædicnemus*.

*Fringa squatorola*.

Gen. 2. *Vannus*.—Great toe scarcely distinguished; tarsi scaled with escutcheons.

*Tringa vanellus*.

Gen. 3. *Hamatopus*.—Bill wedge-shaped, and very strong; tarsi reticulated; no great toe.

*Hamatopus ostralegus*.

Gen. 4. *Tachydromus* of Illiger.—Bill thin and evenly conical; wings shorter.

Gen. 5. *Microdactylus* of Geoffroy.—Bill longer, hooked, and cloven as far as the eye.

*Microdactylus cristatus*; *palameda* of Gmelin.

#### Family 3. *ROSTRO CULTRUM SESE FERENTE*.

Bill thick, strong and long, frequently cutting and pointed. Cœcal appendages short.

##### Group 1. *Grues*.

Bill straight, cloven but a short distance within the head; the membranous furrow of the nostrils, which is broad and concave, occupies nearly half the length of the bill; tarsi scaled with escutcheons.

Gen. 1. *Psophia* of Linné.—Bill shorter than the rest; the head and neck covered only with down; circle about the eye naked.

*Psophia crepitans* of Linné.

*Ardea pavonia*.

*A. virgo*.

Gen. 2. *Grus*.—Bill as long, or longer than the head.

*Ardea grus*.

*A. scolopacea*. Bill thin, enlarged the last part of its length.

*Ardea helias*. Tail graduated. Gen. *Eurypyra* of Illiger. Agreeably to our definition, it would seem that, contrary to the judgment of Cuvier, each of these species ought, from a difference of form, to be considered as being of different genera.

Gen. 3. *Cancroma*. See *CANCROMA*.

##### Group 2. *Ardeæ*.

Bill cloven as far as their eyes; nasal furrow extended very nearly to the point. Chief characteristic consists in having the nail of the middle toe short and toothed at its inner edge.

*Ardea major*.

*A. minuta* Danubialis.

Gen. 1. *Aigretta*.—Feathers of the lower part of the back becoming at a certain age remarkably elongated and hackled.

*Ardea garzetta*.

*A. egretta*; *A. alba*.

*A. stellaris*.

Gen. 2. *Les bihoreaux*.—Some thin and stiff feathers upon the occiput.

*Ardea Nycticorax*.

##### Group 3. *Ciconiæ*.

Bill thick, moderately cloven into the head; legs reticulated; the external toes very remarkably palmated at the base; gizzard somewhat muscular; cœcal appendages very small.

Gen. 1. *Ciconia*. No nasal furrow.

*Ardea ciconia*.

*A. nigra*.

Gen. 2. *Mycteria* of Linné.—Bill slightly curved upwards.

*A. Americana*.

Gen. 3. *Scopus* of Brisson.—Bill compressed; nasal furrow long.

*A. umbretta*.

Gen. 4. *Anastomus* of Illiger.—Mandibles not meeting; erect at the point.

*Ardea pondiceriana*.

*A. Coromandalina*.

Gen. 5. *Tantalus*.—Dorsum of the bill is round, point bent down, slightly notched on each side.

*Tantalus ibis*.

*T. leucocephalus*.

Gen. 6. *Platalea* of Linné.—Bill remarkably flat and expanded at the end into a round disk.

*P. leucorodia*.

*P. nivea*.

*P. aliaia*.

#### Family 4. *ROSTRO LONGO*.

Bill thin, long, and feeble.

##### Group 1. *Scolapaces*.

Gen. 1. *Ibis* of Cuvier.—Some part of the head nearly deprived of feathers.

*I. religiosa*; *tantalus* *Æthiopius* of Latham.

*I. rubra*; *T. ruber* of Gmelin.

*I. falcinella*; *scolopax falcinellus*.

Gen. 2. *Numenius* of Cuvier.—Upper mandible surpassing the lower.

*Scolapax arcuata*.

Gen. 3. *Phæops* of Cuvier.—Bill depressed towards the point.

*Scolapax phaopus*.

Gen. 4. *Falcinellus*.—Bill of the phaops, but no great toe.

Gen. 5. *Scolopax* of Cuvier.—Upper mandible exceeds the lower by an enlargement which has one furrow.

*S. rusticola*.

*S. gallinago*.

*S. major*.



*S. Gallinula.*

*S. paludosa.*

Gen. 6. *Rhynchaea* of Cuvier.—Mandibles nearly equal, arched slightly at the tip.

*Scolopax Capensis.*

Gen. 7. *Limosa* of Bechstein.—Bill straight or sometimes even slightly turned upwards; longer than the scolopax.

*Scolopax leucophica.*

*S. ægocephala.*

Gen. 8. *Calidris* of Cuvier.—Bill slightly depressed at the tip; nasal furrow very long.

*Tringa arenaria.*

Gen. 9. *Pelidna* of Cuvier.—Bill longer than the head; toes with margins.

*Tringa cinchus.*

*T. Alpina.*

Gen. 10. *Machetes* of Cuvier.—Palmation between their outer toes.

*Tringa pugnax.*

Gen. 11. *Arenaria* of Bech.—Great toe wanting.

*Choradrius calidris rubidus* of Gmelin.

Gen. 12. *Phalaropus* of Brisson.—Bill flattened; toes margined with broad membranes.

*Tringa lobata.*

*Phalaropus rufus*; *Tringa fulcaria.*

Gen. 13. *Streptilas* of Illiger. Legs low; bill short, conical, and even; nasal furrow less than half the length of the bill.

*Tringa interpres.*

Gen. 14. *Totanus* of Cuvier.—Bill thin, round, pointed; upper mandible arched a little towards the tip.

*Scolopax glottis.*

*S. fuxa.*

*S. totanus.*

*S. calidris.*

*S. gambetta.*

*S. ochrapus.*

Gen. 15. *Lobipes* of Cuvier.—The feet of the phalaropus joined to the beak of the totanus.

*Tringa hyperborea.*

Gen. 16. *Himantopus*.—Bill round, slender, and pointed; legs excessively high, thin, reticulated, and destitute of great toes.

Gen. 17. *Recurvirostra*.—Feet palmated; bill thin and turned up.

*R. avocetta.*

*R. Americana.*

*C. orientalis.*

#### Family 5. DIGITIS LONGISSIMIS.

Feet very long; suitable for walking upon the weeds of a marsh. Body singularly flattened, a conformation effected by the narrowness of the sternum; great toe very long.

##### Group 1. *Parra*.

Gen. *Parra* of Linne.—Feet with four very long toes, divided to the root; nails long, bill like that of the varnus; wings armed with a spur.

*P. jacana.*

*P. cæna.*

##### Group 2. *Palamedes* of Linné.

Two strong spurs upon each wing; bill slightly cloven; somewhat compressed, not enlarged; upper mandible slightly arched.

Gen. 1. *Palamedes*.—A long fine horny shaft upon the head.

Gen. 2. *Chauna*.—Hind part of the head ornamented with a circle of raised feathers, which, and the upper part of its neck, are covered with down.

*Parra chararia.*

##### Group 3. *Ralli*.

Gen. *Ralli*. Head destitute of escutcheon.

*R. aquaticus.*

*R. crax.*

*R. parzema.*

##### Group 4. *Fulica*.

Forehead furnished with a horny disk.

Gen. 1. *Gallinula* of Brisson.—Bill compressed; toes very long.

*Fulica chloropus.*

*F. naevia.*

Gen. 2. *Porphyrio* of Brisson.—Bill higher in proportion; frontal plate large. Support themselves on one foot whilst they eat.

*Fulica porphyrio.*

Gen. 3. *Fulica* of Brisson.—Bill short; toes widened by a festooned border.

*Fulica atra*; *F. atarrima* et æthiops of Gmelin.

Gen. 4. *Glareola* of Gmelin.—Bill short and conical, arched entirely; wings very long, often forked.

*G. Austriaca.*

Gen. 5. *Phenicopterus.*

*P. ruber.*

#### ORDER VI.—PALMIPEDES. ANSERES.

Sternum very long, defending a great part of their viscera, not having a notch on each side. Gizzard muscular; œcal appendages long: inferior larynx simple, but inflated in one family into cartilaginous capsules.

##### Family 1. BRACHYPTERA.—*Alis brevibus.*

Legs placed further behind than any of the other families; wings short; plumage compact; confine themselves to the surface of the water.

##### Subdivision. 1. COLYMBI.

Bill thin, straight, compressed, pointed; nostrils linear.

Gen. 1. *Pediceps* of Latham.—Colymbus of Bris. Middle nail flattened; tarsi very much compressed. Instead of palmation, integuments spread out.

*C. cristatus* urinator.

*C. cornutus*, obscurus, caspicus.

*C. povotis* subcrustatus, rubricollis.

*C. minor.*

Gen. 2. *Mergus* of Brisson.—Feet palmated.

*Colymbus glacialis*, arcticus, immer.

*C. septentrionalis* stellatus.

Gen. 3. *Uria* of Brisson.—Destitute of a great toe

*Colymbus troile.*

Gen. 4. *Cephus*.—Bill shorter; back less arched and without indentation. The symphysis of the lower mandible is very short.

*Colymbus minor* of Grynle.

##### Subdivision. 2. ALCE.

Bill very much compressed, elevated vertically; dorsum sharp, commonly furrowed across.

Gen. 1. *Fratercula*.—Bill shorter than the head, and higher at the base than it is long.

*Alca artica*; *Labradoria* of Gmelin.

##### Group 1. *Procellariæ*.—Nostrils tubular

Gen. *Procellaria*.—Bill hooked at the point, extremity seems to be composed of a piece which is articulated to the rest; nostrils united into a tube upon the dorsum of the mandible.

*Procellaria gigantea* of Latham, quebrata huesos, *P. Capensis.*

These birds were our constant companions during several thousand miles, and quitted our company a short time in the Blossom's passage round the Horn

*Procellaria glacialis.*

*P. pelagica.*

Gen. 2. *Puffinus*.—Lower mandible bent towards the base with that of the upper. Nostrils not opening by a single orifice, but by two distinct apertures.

*Procellaria puffinus.*

*P. obscura.*

*P. æquinoctialis.*

Gen. 3. *Halodroma* of Iliger.—*Halodroma*, from ἅλας the sea, and δρομω, to run, alluding to its habit of running upon the sea through the assistance of its wings, which is not confined to this genus. Bill similar to that of the preceding genera, but the throat is dilatable like that of the cormorant; great toe entirely wanting.

*Procellaria urinatrix.*

Gen. 4. *Pachyptera* of Iliger.—Ends of the bill furnished with plates, as in the ducks.

*Procellaria furcata.*

*P. marina.*

*P. fuliginosa.*

*P. vittata, cerulea* of Gmelin.

Gen. 5. *Alca*.—Bill longer, and in form of the plate of a couteau; wings too small to support the weight of the body.

*Procellaria lorde et pira* of Gmelin.

*P. impennis* of Linné.

#### Group. 2. *Aptenodytes* of Foster.

Wings with only the vestiges of feathers, which at first sight resemble scales; the trochis is enlarged like the heel of a quadruped, and within are found three bones cemented together by their extremities.

Gen. 1. *Aptenodytes* of Cuvier.—Manchots. Bill slender, long, and pointed; the upper mandible somewhat arched towards the extremity, covered with feathers nearly a third of the length, where is seated the nostril.

*Aptenodytes patagonica.*

Gen. 2. *Catarrhactes*.—Bill strong, somewhat compressed, pointed; dorsum round, the point somewhat arched.

*Aptenodytes chorysozona.*

Gen. 3. *Spheniscus*.—Bill compressed, straight, irregularly furrowed at its base; the end of the upper mandible hooked, inferior truncated; nostrils in the middle and bare.

*Aptenodytes leomera.*

#### Family. 2. ALIS LONGISSIMIS.

This family is recognised by its great toe being either free or deficient, very long wings, and bill without denticulations, but hooked at the tip in the first genera, and simply pointed in the rest. The inferior larynx has but one appropriate muscle on each side; stomach muscular; caecal appendages short.

##### Group 1. *Diomedæa*.

Gen. *DIOMEDEA* of Linné, which see.

*D. spadicea.*

*D. chlororhynchus.*

*D. fuliginosa.*

Color dusty black, a semicircular ring of white about the eye.

##### Group 2. *Lari*. See *LARUS*.

Gen. 1. *Larus*.—Nostrils narrow, in medial distance from the base and the tip.

*Larus marinus.*

*L. glaucus argentatus.*

*L. cyanorhynchus catircilla erythropus.*

*L. canus, rubibundus, hybernus.*

*L. tridactylus, rissa* of Gmelin. Deserves to be

placed by itself from the deficiency of a great toe.

Gen. 2. *Lestris* of Iliger.—Nostrils membranous, larger than in the genus *larus*, placed nearer the end than the base of the bill.

*Larus parasiticus.*

*L. crepidatus* of Gmelin.

#### Group 3. *Sterna*.

Bill straight and compressed, without any curvature; nostrils at the base.

Gen. 1. *Sterna*.—Tail forked; no prominence.

*Sterna hirundo.*

*S. minuta.*

*S. nigra, fessipes.*

*S. leucoptera* of Tem.

*S. alba* of Lay. Common in the South Pacific Ocean; great numbers were seen by us in the island of Pitcairn, hovering over a species of mangrove tree which grows there; the eggs are white, with dusky-red spots of unequal sizes.

Gen. 2. *Noddies*.—Tail not forked bill slightly prominent underneath.

*S. sterna stolidus.*

Gen. 3. *Rhyncops* of Linné.—Resemble the *sterna* in several respects, but is distinguished from all other birds by the comparative shortness of the upper mandible.

*Rhyncops nigra* of Linné.

#### Family 3. PEDIBUS PALMATIS.

Great toe united with the rest by a single membrane.

##### Group 4. *Pelecani*.

A certain space under the throat bare of feathers; nostrils a very narrow chink; skin of the throat dilatable; tongue small, for it would appear that the materials of the tongue have been abstracted to form the vast dilatation of the fauces. *Pelecanus*, from πελεκυς, an axe, applicable to the form of the bill.

Gen. 1. *Onocrotalus* of Bris.—Bill long, straight, and hooked; the flexible branches of the lower mandible bear on their edges a membrane dilatable into a large pouch.

*Pelecanus onocrotalus* of Linné.

*P. philippensis.*

*P. fuscus.*

Gen. 2. *Halieus* of Iliger.—Bill nearly the same; throat less dilatable; nail of the second toe hooked like a saw.

*Pelecanus carbo.*

*P. graculus, Africanus.*

Gen. 3. *Pelecanus* of Linné.—Tail forked; feet short, membranes of the toes deeply hollowed out.

*Pelecanus aquilus* of Linné.

Gen. 4. *Sula*.—Bill straight, slightly compressed, short, point somewhat arched, its edges hooked like a saw.

*Pelecanus bassanus.*

Gen. 5. *Plotus*. See *Plotus*.

Gen. 6. *Phaeton*. See *Phaeton*.

#### Family 4.—ROSTRO LAMINIS INSTRUCTO.

Bill thick, clothed with a soft skin; its edges furnished with plates or small teeth; tongue broad and fleshy, denticulated at its edges. In the greater number the trachea or windpipe of the male is inflated near its bifurcation into capsules of different forms; gizzard large and very muscular; caecal appendages long.

##### Group 1. *Anseres*

Bill large and broad, its edges furnished with prominent plates, fine and placed crosswise.



Gen. 1. *Cygnus*.—Bill of equable breadth, higher at the base than broad; nostrils in the medial division of its length; neck very long.

*Anas olor.*

*A. cygnus.*

*A. plutonia*; the atrata of Latham.

*A. cygnoides.*

*A. gambensis.*

Gen. 2. *Anser* of Brisson.—Bill of a moderate length or short, narrower before than behind, higher than broad at its base.

*Anas anser.*

*A. albifrons.*

*A. hyperborea* of Gmelin.

Gen. 3. *Les Barnaches*.—Bill shorter and finer; its edges do not allow the plates to appear on the outside.

*Anas bernicla.*

*A. Egyptiaca.*

*A. leucoptera.*

*A. antarctica.*

#### Group 2. *Anates*.

Bill not so high as broad at the base, as wide or wider at the tip than at the base; nostrils nearer the dorsum and base of the bill; legs short.

#### First subdivision.

Gen. 1. *Les Macreuses*.—Upper mandible with an enlargement upon its surface.

*Anas nigra.*

*A. furca.*

*A. percipillata.*

Akin to this genus is *anas lobates* from New Holland, but ought to be separated from it by reason of large fleshy wattles, which hang from their beak.

Gen. 2. *Les Garrots*.—Bill short, narrower before.

*Anas glacialis, hyemalis.*

*A. histrionica minuta.*

*A. clangula, glaricion.*

Gen. 3. *Les Eiders*.—Bill longer than in the last; remounting upon the forehead and dividing the feathers.

*Anas mollissima, spectabilis.*

Gen. 4. *Millouins*.—Bill broad and flat.

*Anas ferina rufa.*

*A. renfina.*

*A. marila frænata* (fem.)

*A. nyroca Africani* (fem.)

*A. fuligula* of Linné. Scandiaca. The young one.

#### Second subdivision.

Great toe is not margined by a membrane; head thin; feet less broad; neck longer; bill more equal.

Gen. 1. *Les Souchets*.—Bill long; upper mandible turned perfectly in semi-cylindric form, widened at the end.

*Anas clypeata.*

*A. fasciata.* Edges of the bill prolonged into a membranous appendage.

Gen. 2. *Tadorna*.—Bill very much flattened at the end, raised at the base into a prominent boss.

*Anas tadorna* of Linné.

*A. moschata* of Linné.

*A. boschas* of Linné.—Tracheal capsule large and long.

*Anas adunca.* Bill hooked.

*A. gallericulata.* Feathers of the wings widened and raised vertically.

*Anas sponsa.*

*A. strepera.* Tracheal capsule of a middle size.

*A. penelope.*

*Les Sarcelles.*

*A. querquedula* (circia, the old male).

*A. crecca.*

#### Group 3. *Mergi*.

Bill finer and more cylindrical than in the last group, and each mandible is furnished at the edges with small pointed teeth like a saw, directed backwards. See *Mergus*.

*Mergus merganser.*

*M. serrator.*

*M. albellus.*

#### CLASS III.—REPTILIA.

Reptiles have the heart disposed in such a manner that at each contraction there is sent into the lungs only a certain portion of that blood which has been received from different parts of the body, whilst the rest of the fluid returns again to the several regions of the animal frame without having passed through the lungs, which quantity of respiration, if we call that of the mammalia unity, we must express by a certain fractional quantity. The females have a double ovary and two oviducts; the males of many genera have the penis forked or double, but in the last order there is no male organ of generation. M. Brongniart divides this class into four orders, whose division we shall follow, only preferring the Latin terms to gallicisms.

#### ORDER I.—TESTUDINES.

The heart with two auricles: the body borne upon four feet, and covered completely with two plates or shields, formed by the ribs and the sternum. The upper plate is called by the French carapace, and the lower one plastron, which terms the necessity of language admonishes us to borrow.

Gen. 1. *Testudo* of Brongn.—Carapace elevated; toes short and united very nearly to the nails, which are thick and conical; four behind and five before; head can be withdrawn entirely under the carapace.

*T. grocca.*

*T. indica.*

*T. geometri.*

Gen. 2. *Emys* of Brongn.—Fresh water turtle. Toes more separate, terminated by longer nails, intervals of which are occupied by membranes.

*T. Europæa.*

*T. picta.*

Gen. 3. *Pyxis*.—Tortues à boîte of Cuvier. Plastron divided into two compartments by a moveable articulation, by which means they can shut their carapace completely when the head and limbs are withdrawn.

*La tortue à boîte d'Amboine* of Daud.

Gen. 4. Tail nearly as long as the carapace.

*T. serpentina.*

Gen. 5. *Chelonia*.—Sea turtle. Horny involution too small to receive the head; feet lengthened and flattened to answer the purpose of fins; all the toes closely united by a membrane.

*T. mydas.* When a great many of these animals were taken on board the Blossom, from Bonin Island, they were observed to breathe about eight times in the hour at an average: 300 eggs were counted in one of the ovaries, and it appeared to us that one ovary only became fertile at one time.

*T. imbricata.*

*T. caouana.*

*T. coriacea.*

Gen. 6. *Chelys* of Dumer.—Snout prolonged into a small trumpet; throat cloven across, and not covered with horn as in the rest of this order.

T. fimbriata.

Gen. 7. *Trionyx* of Geoffroy.—Without scales; carapace and plastron covered with a soft skin.

T. triunguis.

T. feron.

#### ORDER II.—LACERTACEÆ.

Heart with two auricles; body borne upon four feet, and covered with scales.

##### Family 1. CROCODILI.

Large stature; tail flattened laterally; five toes before and four behind; three inner ones only armed with nails; all of them more or less connected together by membranes.

Gen. 1. *Les gavials*.—Snout slender and very much elongated; teeth equal.

Lacerta gangetica.

Gen. 2. *Crocodilus*.—Snout oblong and depressed; teeth unequal.

L. crocodilus.

Crocodilus biporatus of Cuvier.

Gen. 3. *Alligator*.—Snout broad, blunt; teeth unequal.

C. sclerops of Schn.

C. lucius of Cuvier.

##### Family 2. LACERTÆ.

Distinguished by their thin tongue, which is extensible and terminates into two long filaments; toes separate and unequal.

##### Group 1. Monitores.

This group includes species on a larger scale of magnitude.

Gen. 1. *Monitor*.—Scales small and numerous.

Tupinambis elegans of Daud.

Lacerta nilotica. Tail with a denticulated ridge.

L. Capensis tupinambis ornatus.

Cuaran el hard, M. terrestris. Tail without ridge.

Gen. 2. *Les dragonnes*.—Scales large with ridges like those of the crocodili.

La dragonne of Lacep.

Gen. 3. *Les sauvegardes*.—All the scales of the back small and without ridges; one rank of pores imperfectly marked under each thigh; feet denticulated.

Lacerta teguixin of Linné et Sh.

Gen. 4. *Ameira*.—Sauvegardes with a round tail.

Lacerta ameira of Gmelin.

##### Group 2. Lacerta propriae.

Gen. 1. *Lacerta*.—Palate armed with two ranks of teeth; a collar under the neck formed by a transversal row of broad scales separated from those of the belly by a space.

Gen. 2. *Tachydromas*.—Body and tail very long; rows of square scales upon the back.

##### Family 3. ICAUNACEÆ.

Tongue fleshy, thick, incapable of extension, and notched only at the end.

##### Group 1. Stellions.

Tail surrounded by rings composed of large scales, often spiny; teeth in the palate wanting.

Gen. 1. *Cordylus* of Daud.—Tail, belly, and back furnished with large scales set in transversal ranks.

Lacerta cordylus.

Gen. 2. *Stellio*.—Head enlarged behind by the muscles of the jaws.

Lacerta stellio.

Gen. 3. *Stellions batards* of Daud.—Head without enlargement behind; rows of pores under the thigh.

Stellio spinipes of Daud.

##### Group 2. Agamæ.

Scales of the tail imbricated.

Gen. 1. *Agama*.—Scales raised into a spiny point; different parts of the body spiny.

L'Agama des colons of Daud.

Lacerta muricata of Shaw.

Gen. 2. Belly inflated; tail short and thin.

Lacerta orbicularis.

Gen. 3. *Trapelus* of Cuvier.—Scales small, smooth, and without spines.

Le changeant d'Egypte of Geoffroy.

Gen. 4. *Calotes*.—Scales imbricated; free and cutting at their edges.

Lacerta calotes of Linné.

Gen. 5. *Lophurus* of Dum.—Dorsal crest extended over the length of the tail.

Lacerta scutata of Linné.

L. superciliosa.

Gen. 6. *Basiliscus*.—Dorsal crests sharp, supported by the apophyses of the spine.

L. basiliscus of Linné.

L. Amboinensis of Gmelin.

##### Group 3. Dracones.

First size of the false ribs extending and affording support to an alar prolongation of the integuments.

##### Group 4. Iguanae.

Back ridged with elevated scales, which are less compressed and pointed; anterior edge of the dewlap supported by a cartilaginous process of the os hyoides.

Gen. 1. *Iguana*.

Lacerta iguana of Linné. I. tuberculata of Lem.

L'iguane ardoisé of Daud.

L'iguane à col nu of Cuvier.

L'iguane cornude, Saint Domingo of Lacep.

L'iguane à bandes of Brong.

Gen. 2. *Polychrus* of Cuvier.—Without dorsal crests; throat forms a dewlap at the pleasure of the animal.

Lacerta marmorata of Linné.

Gen. 3. *Anolis* of Cuvier.—Skin of their toes widened, at the antepenultimate phalangeal bone, into an oval disk; dorsal crest present.

##### Family 4. GECKONES or ASCALABOTETES.

Skin of the toes widened the whole length, or at least at the extremities, and furnished underneath with scales or cuticular folds to assist them in climbing.

Gen. 1. *Platydictyli*.—Toes widened in the whole length, and furnished underneath with transverse scales.

With nails.

Gecko inunguis of Cuvier.

G. ocellatus of Oppel.

G. cepedien of Péron.

Without nails.

Lacerta Mauritanica of Gmelin. (Stellio). Without nails and thumbs.

Stellio gecko of Schn.

Lacerta vittata of Gmelin.

Gen. 2. *Hemidictyli*.—Base of their toes furnished with an oval disk.



Gecko of Siam or Tokaie.

G. of Java.

Gen. 3. *Thecadactyli*.—Scales forming a furrow underneath for the lodging of the nail.

Gecko lævis of D. *Stellio perfoliatus* of Schn.

Gen. 4. *Ptyodactyli*.—Ends of the toes only dilated into plates.

*Lacerta gecko*; *gecko labiatus* of Geoffroy.

Gen. 5. *Uroplatiz*, *stellio fimbriatus*.

Phylluri.

*Stellio phyllurus*.

Family 5.—CAMELEONES. See CAMELEO.

Family 6. SCINCOIDES.

Feet short; tongue not extensible; scales imbricated.

Gen. 1. *Scinci* of Daud.—Body smooth and tapering.

*Lacerta scincus* of Linné.

Gen. 2. *Sepses* of Daud.—Body still more elongated; feet smaller; hairs wide apart.

*Anguis*, *quadrupes* of Linné.

Gen. 3. *Bipedes* of Lacep.—Fore feet wanting.

*Lacerta apus* of Gmelin.

Gen. 4. *Chalcides* of Daud.—Body very much elongated; feet short and distant, very like the serpentes, but the scales are ranged in transverse bands.

*Lacerta chalcis*, *chamossura*; *cophias* of Sch.

*L. anguina*.

Gen. 5. *Chirotetes* of Cuvier. Hind feet wanting.

*Lacerta lumbricoides* of Shaw.

ORDER III.—SERPENTES.

Reptiles without feet; locomotion performed by means of alternate doublings of the body.

Family 1. ANGUES.

Head bony; teeth and their tongue similar to those of the seps. Eyes furnished with eye-lids; in short, they are seps without feet.

Gen. 1. *Ophisaurus* of Daud.—Tympanum externally visible.

*Anguis ventralis*.

Gen. 2. *Anguis*.—Tympanum externally invisible.

*A. fragilis* of Linné.

Family 2. SERPENTES PROPRIÆ.

Destitute of a sternum. and without any vestiges of a shoulder.

Group 1.

Lower jaw bone is as in the foregoing orders of reptiles, by an os tympanique, or drum-headed bone, immediately articulated to the cranium; the two branches of this jaw are cemented together in front, and those of the upper jaw fixed to the cranium, and to the intermaxillary bone.

Gen. 1. *Amphisbena* of Linné.

Gen. 2. *Typhlops* of Schn.—Snout depressed, advanced and furnished with plates.

*Anguis lumbricalis* of Lacep.

Group 2.

The os tympanique, or pedicle of the lower jaw moveable, and generally suspended by another bone analogous to the mastoid, which is attached to the skull by muscles and ligaments, that allow it a certain degree of mobility.

Gen. 1. *Tortrix* of Appel.—Scales larger than in the rest of this group.

*Anguis scytale*.

Gen. 2. *Boa* of Linné.

Gen. 3. *Ermi*.—Differ from the Boa, in having a very short tail; and the ventral plates small.

Gen. 4. *Herpetus* of Lacep.—A pair of scaly prominences upon the snout.

Group 3.—Colubri.

Gen. 1. *Python* of Daud.—A pair of hooks near the anus.

Gen. 2. *Hurria*.—Scales under the tail simple, near the tip double.

Gen. 3. *Dipsas*.—Body compressed.

D. Indica.

Gen. 4. *Coluber*.

C. natrix.

Gen. 5. *Acrochordius*.—Head and body covered with uniform small scales.

A. Javensis.

Family 3. SERPENTES VENENOSI.

The first tooth in the upper jaw larger than the rest, and tubular for conducting the poison.

Gen. 1. *Bonguru* of Daud.—Back carinated.

Gen. 2. *Trimesurus* of Lac.—Back without any peculiarity.

Gen. 3. *Hydrus*.—Body very much compressed.

Gen. 4. *Hydrophis*.—A row of scales somewhat larger than the rest under the belly.

Gen. 5. *Pelamides*.—Occiput inflated to make room for the lengthened pedicles of the lower jaw.

*Anguis platirus*.

Gen. 6. *Chersydrus* of Cuvier.—The head and the whole body equally covered with scales.

*Acrochordius fasciatus* of Shaw.

Family 4. SERPENTES VENENOSISSIMI.

Their superior maxillary bones are very small; they are borne upon a pedicle, analogous to the external pterygoid or apophysis of the spheroid, and are very moveable: there is fixed in them a sharp tooth hollowed by a canal that affords an exit to a humor secreted by a gland seated under the eye. This tooth is concealed in a fold of the gum when at rest; behind it there are many germs destined in their turn to replace it, should it be lost in the exercise. This fang was once looked upon as moveable, but it is the jaw bone that is moved; there are no other teeth in the upper jaw bone besides this, but two ranks in the palate.

Group 1. *Crotali*.

Gen. 1. *Crotalus*.

Gen. 2. *Scatole* of Latham.—Entire plates under the body, and under the tail.

Gen. 3. *Acanthophis* of Daud.—Double plates at the end of the tail, which is terminated by a spine.

Gen. 4. *Langaia* of Brug.—Plates behind the anus, surrounding the tail.

*Langaia*, *nasuta* of Shaw.

Group 2. *Viperæ*.

Integuments like those of the Coluber.

Gen. 1. *Trigonocephalus*.—Fossal behind the nostrils; tail generally ending in a small point; occiput enlarged.

Gen. 2. *Platurus*.—Tail compressed; head covered with plates.

Gen. 3. *Naia*.—In progression the part of the body near the heart enlarged into a disk.

C. maia of Linné.

Gen. 4. *Elaps* of Schneid.—Head, owing to the shortness of the os tympanique and the mastoid bones, even with the rest of the body.

*Coluber lemniscatus* of Linné.

Gen. 5. *Vipera*.—Head covered with granulated scales.

Coluber berus of Linné.

C. vipera cerastes.

Gen. 6. *Cobra*.—Head imbricated, with carinated scales.

#### Family 5. SERPENTES NUDI.

Gen. *CÆCILIA*, which see.—The articulation of the vertebra is formed by two facettes of a hollow cone filled with gelatinous cartilage as among fishes, and their cranium is united to the first vertebra by a pair of tubercles, as in the batrachi; the maxillary bones cover the orbit, which is like a simple orifice; and the temporal bones cover the temporal foss in such a manner that the head presents nothing but shell of bony continuity. The auricle is not sufficiently divided in this genus to be regarded as double; their second lung is very small; it appears that they place their eggs in a semi-membranous tube, and unite them into long chains.

#### ORDER IV.—BATRACHI.

The heart has but one auricle and one ventricle. They all have a pair of lungs, to which are joined in the first stage of their existence certain branchiæ or gills more or less analogous to those of fishes, which are attached to the sides of the neck by means of the cartilaginous rings that support the os hyoides.

#### Family 1. RANÆ.

Gen. 1. *Rana*.

R. paradoxa.

R. esculenta.

R. temporaria.

R. taurina.

Gen. 2. *Hyla*.—Ends of the toes enlarged, and rounded into small viscous balls.

Rana arborea.

R. tinctoria.

Gen. 3. *Bufo*.

Rana bufo.

R. bufo calamita.

R. bombina, &c.

Gen. 4. *Pipa*.—Body flattened horizontally; no tongue; head triangular.

Rana pipa.

#### Family 2. SALAMANDRÆ of Brong.

Gen. 1. *Salamandra*, Laur.

Lacerta salamandra.

Gen. 2. *Triton*, Laur.

S. marmorata of Latham.

S. cristata.

S. punctata.

S. palmata.

S. gigantea.

Siren pisciformis.

#### CLASS IV.—PISCES.

Animals with a double circulation, but the respiration is performed through the mediation of water, which is effected by means of an apparatus called the branchiæ, consisting of leafy folds suspended by bony arches, which are connected with the os hyoides, and are severally composed of a great number of laminae, which may be separated like the threads of the warp when the woof is unravelled; the tissue which invests these laminae is replenished with countless branchings of blood-vessels. We shall presume that the reader is already acquainted with the distinctions to which the fins are from their relative position subject, and

pass onwards to discuss the nature of this part of our arrangement.

Pisces ossibus ex cartilagine concretis. Skeleton cartilaginous, the calcareous matter being deposited in small grains and not in fibres nor filaments; the cranium, owing to the plastic nature of the material, destitute of sutures, but described into portions by means of certain prominent lines.

#### ORDER I.

Branchiæ fixed to the skin by their outward edge, to which the water has access through a certain number of apertures in the sides of the neck.

#### DIVISION I.—CYCLOSTOMA.

Skeleton the most imperfect of all the fishes; no pectoral nor ventral fins; body elongated, and terminating before in a circular or semicircular lip of a fleshy consistence, which is supported by a cartilaginous rising, resulting from the commutual union of the mandibles and the palatine bones.

*Petromyzon* of Linné. Branchial apertures seven.

Gen. 1. *Petromyzon* of Dum.—Maxillary ring armed with strong teeth.

P. maximus.

P. fluviatilis.

P. planeri of Bl.

Gen. 2. *Ammocetes* of Dumer.—Skeleton soft and membranous; no teeth.

P. branchialis of Linné.

#### DIVISION II.—PLAGIOTOMA.

Their palatine bones and their postmandibles only are armed with teeth and fulfil the office of the maxillary bones; of the ordinary bones there exists no vestige; a single bone suspends the apparent jaw bones to the cranium, and at once represents the os tympanique, the zygomatic arch, and the temporal bone.

#### Family 1. SQUALI.

Gen. 1. *Scyllium* of Cuvier.—Snout short and obtuse; nostrils near the mouth.

Squalus canicula.

Gen. 2. *Carcharias* of Cuvier.—Snout depressed; nostrils under its medial line.

Squalus carcharias.

S. vulpes.

S. glaucus.

Gen. 3. *Lamna* of Cuvier.—Snout pyramidal.

Squalus cornubicus.

Gen. 4. *Zygæna* of Cuvier.—Head of a singular conformation, to a fanciful view resembling a hammer.

Squalus Zygæna.

Gen. 5. *Galeus* of Cuvier.—Differs from the foregoing genera chiefly in having the super umery apertures behind the anus.

Squalus galeus.

Gen. 6. *Mustelus* of Cuvier.—Teeth in small pavements.

Squalus mustelus: two species are confounded under this name.

Gen. 7. *Notidamus*.—Differs from galeus solely in the want of the first dorsal fin.

Squalus griseus.

S. vacca.

Gen. 8. *Selache*.—Unite the forms of the carcharias with the superumery apertures of the galeus.

Squalus maximus of Linné.

Gen. 9. *Cestracium* of Cuvier.—Add to the chief



characters of the *mustelus* a spine before each dorsal fin.

*Squalus philippii*.

Gen. 10. *Spinax* of Cuvier. Unite most of the characters belonging to the preceding genera, but chiefly distinguished by the absence of an anal fin.

Gen. 11. *Centrina* of Cuvier.

*Squalus centrina* of Linné.

Gen. 12. *Scymnus* of Cuvier.

*Squalus Americanus*.

#### Family 2. *SQUATINÆ* of Dum.

Gen. 1. *Squatina*.—Opening of the mouth at the anterior edge, and not underneath as in the preceding family; eyes seated upon the upper surface.

*Squalus squatina* of Linné.

Gen. 2. *Pristis*. Snout prolonged into a depressed beak, armed on each side with strong bony spines.

*Squalus pristis* of Linné.

#### Family 3. *RAIÆ*.

Gen. 1. *Rhinobatus*.—Tail thick and fleshy.

*Raia rhinobatus*.

Gen. 2. *Rhina*.—Snout short, broad, and round.

*R. ancylostomus*.

Gen. 3. *Torpedo*.—The seventh pair of nerves curiously ramified and spread over a large portion of the body.

Gen. 4. *Raia*.—They present a disk of a rhomboidal form.

*R. clavata* of Linné.

*R. ruba* of Linné.

*R. batis* of Linné.

Gen. 5. *Trygon* of Adams.—Tail armed with a serrated sting.

*Raia pastinaca* of Linné.

Gen. 6. *Myliobates* of Dum.—Head prominent.

*Raia aquila* of Linné.

Gen. 7. *Cephaloptera*.—Differs from the trygon chiefly in having the teeth thin and finely denticulated.

#### Family 4. *CHIMÆRÆ* of Linné.

Gen. 1. *Chimæra* of Cuv.—Snout simply conical.

*C. monstrosa* of Linné.

Gen. 2. *Callorynchus* of Grov.—Snout terminated by a fleshy lip.

*C. callorynchus* of Linné.

#### ORDER II.—*CHONDROPTERYGII*.

*Branchiis liberis*. Gills furnished with an operculum, but the branchiostegous membrane is without rays.

Gen. 1. *Acipenser* of Linné.

Gen. 2. *Spatularia* of Shaw.—Recognised by an enormous extension of the mouth, which by its widened edges puts on the figure of a leaf.

*Squalus spatula* of Manduil. Found in the Mississippi.

#### ORDER III.—*PLECTOGNATHA*.

Skeleton of a fibrous texture; maxillary bone firmly attached to the intermaxillary side, which alone forms the jaw; the palatine arch is jointed by a suture to the cranium; opercula and the gills concealed under the skin, and visible only through a small cleft.

#### Family 1. *GYMNODONTES*.

An ivory substance in the room of teeth, which consists internally of plates. The apparent bill thus formed must be considered as resulting from the confluence of the mere teeth; for it is further observable that there is a certain disposition in the bones of the head to blend with each other, owing

no doubt to the soft and plastic nature of their materials.

Gen. 1. *Diodon* of Linné.

Gen. 2. *Tetraodon* of Linné.

Gen. 3. *Cephalotus orthagorinus* of Sch.—This genus differs from the *diodon* in having the body compressed and without spines.

#### Family 2. *SCLERODERMATA*.

Snout conical or pyramidal, prolonged from the eyes, terminating in a small mouth, which is armed with a few distinct teeth; skin covered with hard scales.

Gen. 1. *Balistes*.—Scales large, very hard, and of a rhomboidal form. See *BALISTES*.

*B. capricus*.

Gen. 2. *Monocanthus* of Cuvier.

*Balistes Chinensis*. Scales very small, roughened by stiff and compact scabrosities.

Gen. 3. *Aluterus* of Cuvier.

*Balistes monoceros* of Linné.—Body elongated, covered with small compact grains.

Gen. 4. *Triacanthus* of Cuvier.—Each ventral supported by a large thorny ray.

Gen. 5. *Ostracion*. See *OSTRACION*.

#### ORDER IV.—*LOPHOBANCHIA*.

Branchiæ divided into small round crests, disposed in hairs along the branchial arches, and enclosed under a large operculum, which is so attached by a membrane as to leave only a small chink for the exit of the water.

#### *SYGNATHI*.

Gen. 1. *Sygnathus*.—Body very long and very fine, and of nearly equal diameter in its whole length.

*S. pelagicus*.

Gen. 2. *Hippocampus*.—Trunk literally compressed, elevated above the tail.

*Sygnathus hippocampus*.

Gen. 3. *Solenostomus*.—Ventral fins united into a sort of tablet.

*Fistularia paradoxa*.

Gen.—*PEGASUS* of Linné, which see.

#### ORDER V.—*MALOCOPTYERYGII ABDOMINALES*.

Rays of the fins soft, excepting sometimes the first ray of the dorsal or the pectoral fins. Ventral fins behind the pectoral.

#### Family 1. *SALMONES*.

Gen. 1. *Salmo* of Cuvier.

*S. salar* of Linné.

Gen. 2. *Osmerus* of Cuvier.

*S. eperlanus*.

Gen. 3. *Coregonus*.

*S. thymallus*.

Gen. 4. *Argentina* of Linné.

Gen. 5. *Characinus* of Cuvier.

Gen. 6. *Curimatus* of Cuvier.

*S. edentulus*.

Gen. 7. *Anostomus* of Cuvier.

*S. anostomus* of Cuvier.

Gen. 8. *Piabucu* of Marg.

Gen. 9. *Mylets* of Cuvier.

*Cyprinus denter*; *Salmo denter*; *S. niloticus*

Gen. 10. *Hydrocymus* of Cuvier.

*S. falcatus*.

Gen. 11. *Citharinus* of Cuvier.

*S. Ægypticus* of Gmelin.

Gen. 12. *Saurus* of Cuvier.

*S. saurus* of Linné.

Gen. 14. *Scopelus* of Cuvier.

Argentina sphyrona of Pennant in the opinion of Cuvier.

We trust that the attentive reader will be able, with a little diligence, to elicit the appropriate generic characters from the descriptions already given in their places.

## Sternoptix of Heven.

## Family 2. CLUPEÆ.

Destitute of adipose substance; upper jaw formed, as in the trouts, in the middle by intermaxillary bones without pedicles, and at the sides by the maxillary.

Gen. 1. *Clupea*.

*C. harengus*.

Gen. 2. *Meglops*.

*Clupea cypoernoides* of Bl.

Gen. 3. *Engraulis* of Cuvier.

*Clupea encrasicolus* of Linné.

Gen. 4. *Thrissa* of Cuvier.

*Clupea atherinoides* of Bl.

*Pristigaster* of Cuvier.

*Notopterus* of Laap.

*Gymnotus notopterus* of Pall.

*Elops* of Linné.

*CHIROCENTRUS* of Cuvier. Tongue and branchial arches rough with carded teeth; structure of the jaws resemble the clupeæ.

*ERYTHRINUS* of Gronov. *Esox Malabaricus* of Bl. *AMIA* of Linné.

*Sudis*.—Dorsal and anal fins nearly opposite and nearly equal.

*Lepisosteus*.—Scales of a stony hardness.

*Esox osseus*.

*Polypterus* of Geoffroy. —Scales of a stony hardness; numerous fins upon the back, each supported by a strong spine.

*Polypterus bichir* of Geoffroy.

## Family 3. ESOCES.

Upper jaw at the edge is formed by the intermaxillary; maxillary without teeth, and concealed within the lips; intestine short; without cæcal appendages.

Group *Esoces propria*.Gen. 1. *Esox*.

*Esox lucius* of Linné.

Gen. 2. *Galaxias* of Cuvier. —Body without apparent scales.

Gen. 3. *Microstoma* of Cuv. —Snout very short.

Gen. 4. *Stomias* of Cuvier. —The opercula reduced to small membranous leaflets.

Gen. 5. *Chauliodus*, Schn.

*Esox stomias* of Shaw.

Gen. 6. *Sulana* of Cuvier. —The opercula folded underneath.

Gen. 7. *Belone* of Cuvier. —Jaws prolonged into a long snout.

Gen. 8. *Scomberesox* of Lacep. —Belly kelled.

Gen. 9. *Hemi-ramphus*. —Symphysis of the lower jaw prolonged into a long spit.

Gen. 10. *Mormyrus* of Linné. —Intestines long; a pair of cæcal appendages; these are the chief differences between this and the preceding genera.

## Family 4. CYPRINI.

Without adipose substance; recognised by a small mouth, weak jaws, and generally without teeth; edge of the jaw formed by the intermaxillary bones; pharyngeal teeth strong; branchial rays few in number; body scaly; intestine with-

out a cul-de-sac at the stomach, and without cæcal appendages.

Group 1. *Cyprini proprii*.Gen. 1. *Cyprinus*.

*Cyprinus carpio* of Linné.

Gen. 2. *Barbus* of Cuvier.

*Cyprinus barbus* of Linné.

Gen. 3. *Gobio* of Cuvier.Gen. 4. *Gobio* of Linné.Gen. 5. *Tinca* of Cuvier.

*Cyprinus tinca*.

Gen. 6. *Cirrhinus*. —Beard or cirrhi upon the middle of the upper lip.

Gen. 7. *Abramis* of Cuvier.

*Cyprinus brama*.

*C. bleica*; *latus* of Gmelin.

Gen. 8. *Labeo* of Cuvier. —Lips fleshy, and of a remarkable thickness.

*Cyprinus niloticus* of Geoffroy.

Gen. 9. *Leuciscus* of Klein.

*Cyprinus dobula* of Linné.

*C. rutilus*.

*C. lenciscus*.

*C. cultratus* of Blumenbach.

Gen. 10. *Gomrynchus* of Gronov. —Head and body lengthened; snout prominent.

*Cyprinus gonorynchus*, Gron.

Group 2. *Cobites*.

No cæcal appendages; natatory bladder very small.

Gen. 1. *Anableps*. —Eyes prominent, beneath a vault formed on each by a production of the frontal bone; cornea and iris divided into two portions by transverse bands.

*Cobitis anableps* of Linné.

Gen. 2. *Pacilia*, Schn. —Jaws flattened horizontally; furnished with very fine teeth.

*Pacilia vivipara*, Schn. Small fish inhabiting the fresh waters of America.

Gen. 3. *Lebias* of Cuvier. —Differs from the last in having the teeth denticulated.

Gen. 4. *Cyprinodorus*, Lacep. —Teeth carded; in other respects very like the *pacilia*.

*SILUROIDES*. Destitute of true scales; intermaxillary bones suspended under the ethmoid, from the edge of the jaw; maxillary bones reduced to simple vestiges. Intestine ample and folded; without cæcal appendages; natatory bladder large, attached to an appropriate apparatus of bone.

*Siluri* of Linné; true *siluri*. This division embraces several genera, which our limits will not permit us to notice particularly, and there is less need of description in this place, because their general notes of distinction are obvious and natural.

Gen. 1. *Malapterurus*, Lacep. —Destitute of true fins upon the back, and only a small adipose one upon the tail.

*Silurus electricus* of Linné.

Gen. 2. *Aspredo* of Linné. —Head flattened; body widened by the extension of the shoulder bones.

*Silurus aspredo* of Linné; *platystacus laevis*. Bl.

Group 3. *Loricariæ*.

No cæcal appendages, nor natatory bladder; true opercula immovable.

Gen. 1. *Hypostomas*, Lacep. —Labial veil simply papillose.

Gen. 2. *Loricaria*. —Labial veil furnished with cirrhi at the edges.



## ORDER VI.—MALACOPTERYGII SUBBRACHII.

## Family 1. GADI.

Recognised by the ventral fins attached to the throat, and acuminate to a point; body covered with soft scales; head well proportioned, without scales; all the fins soft; stomach in form of a large sac, stout; cœcal appendages very numerous; intestinal canal very long; natatory bladder large; walls stout, and often toothed at the sides.

Gen. 1. *Morrhua*.—Three dorsal fins, two anal; a cirrus at the end of the lower jaw.  
*Gadus morrhue* of Linné.

*G. aglefinus*.

Gen. 2. *Merla*.—The same number of fins, but wants the cirrus

*Gadus merlangus*.

Gen. 3. *Merluccius*.—Two dorsal fins; one anal; want the cirrus.

Gen. 4. *Lota*.—Fins as in the last; cirri more or less numerous.

*Gadus molua*.

*G. lota*.

Gen. 5. *Mustela*.—Anterior dorsal somewhat raised, but scarcely perceptible.

*Gadus mustela*.

Gen. 6. *Brosme*.—Dorsals united into a single long fin.

*Gadus brosme* of Gmelin.

Gen. 7. *Phycis* of Artedi.—Ventral fin of a single ray, often forked; head thick.

*Phycis Mediterraneus*, Lar. *Blennius phycis* of Linné

*Phycis blennoides*; *gadus albidus* of Gmelin; *blennius gadoides*, Risso.; *Gadus furcatus* of Pen.

Gen. 8. *Raniceps*.—Head more depressed than the rest of the gadi; anterior dorsal very small.

Gen. 9. *Lepidelepus*, Risso.; les Grenadiers.—The suborbital bones mutually united with the bones of the nose in order to form a depressed snout, which reaches beyond the mouth, under which the latter preserves its mobility.

*Lepidelepus calorynchus*, Risso.

Gen. 10. *Macrourus*.—First dorsal fin distinct, short; others vertical, united near a long pointed tail; scales carinated and rough.

*Coryphæna rupestris* of Gmelin.

## Family 2. PLEURONECTES.

A family of most easy recognition, embracing the following genera:—*Platessa*, *hippoglossus*, *rhombus*, *salea*, wherein their specific forms may be looked upon as generic characters.

Gen. 1. *Monochirus* of Cuvier.—Pectoral on the side whereon the eyes are placed, extremely small.

Gen. 2. *Achirus*.—No pectoral fins.

LEPADOGASTER, Gouan. The ample pectoral fins united by a transverse membrane; body without scales; snout prominent and extensible.

*Lepadogaster gouan*.

*L. rostratus*, Schn.

*L. balbis*, Risso.

Gen. *Gobiesox*. The interval between the pectoral and the ventral fins is not divided into a double disk, as in the last.

*Lepadogaster dex*.

CYCLOPTERI of Linné.

Gen. *Cyclopterus*.—First dorsal more or less visible.

*Cyclopterus lumpus*.

*Liparis*. A single long dorsal fin.

*Cyclopterus liparis* of Linné.

ECHENEIS of Linné.

Gen. *Ophicephalus*.—Trunk and head covered with large scales; those of the vertex irregular and somewhat like those upon the head of a serpent.

## ORDER VII.—MALACOPTERYGII APODES.

Comprised under the head of one natural family: ANGUILLIFORMES. Form lengthened; skin thick, which in a measure hides the scales; scarcely any ridges; without cœcal appendages; almost all with swimming bladders, which often have a very singular form.

Group 1. *Muraenæ*.

Gill openings on each side under the fins stomach a large cul-de-sac; intestine nearly straight; bladder elongated near the middle; it bears a peculiar gland.

Gen. 1. *Muraena*.

*M. anguilla*.

Gen. 2. *Conger*.—Dorsal commencing near the pectoral.

*Muraena conger*.

Gen. 3. *Ophisurus*.—Dorsal and anal fins terminating before they reach the tail.

*Muraena serpens* of Linné.

Gen. 4. *Gymnothorax*, Bl. Pectoral fins wanted.

*Muraena helena* of Linné.

Gen. 5. *Sphagebranchus* of Bl. Branchial apertures approximating.

Gen. 6. *Synbranchus* of Bl.—Branchial apertures unite without into a single orifice.

Gen. 7. *Alabes*. A small disk between the pectoral fins.

Group 2. *Gymnoti* of Linné.

Branchial apertures like the last; partly shut by means of a membrane, but this membrane opens before the pectoral fins; anus placed far before; anal fins run under the greater portion of the length of the body, and frequently to the end of the tail.

Gen. 1. *Gymnotus*.—Intestines folded many times; cœcal appendages numerous

*Gymnotus electricus* of Linne.

Gen. 2. *Carapus*.—Body compressed; scaly.

Gen. 3. *Stenarchus* of Schn.—Anal fin terminating the body, reaches the end of the tail.

LEPTOCEPHALUS. Branchial apertures larger than in the *muraena*; body compressed like a riband.

*Leptocephalus morrisii* of Gmelin.

OPHIDIUM. Branchial apertures fairly opened and fortified with a large operculum; branchiostegous membrane short.

(Gen.) Two cirri. *Ophidium barbatim*.

(Gen.) Cirri wanted. *O. imbarbe*.

AMODYTES of Linné.

## ORDER VIII.—ACANTHOPTERYGII.

Distinguished by the spines which occupy the site of the first rays, the dorsal, or sometimes range themselves in front of that fin. Their anal fin also has some spines instead of the anterior rays, and they generally have spines one at each ventral.

## Family 1. TÆNIODES.

First division.—Characterised by a body extremely elongated and flattened, and similar to a riband, furnished with a fin which runs the whole length of the body.

Gen. 1. *Cepola* of Linné.

*C. rubescens*.

Gen. 2. *Lophotes* of Giorna.—Head surmounted by a light bony crest, to the summit of which is articulated a long and sturdy ray, bordered behind with a membrane.

L. Lacepede of Giorna. Found rarely in the Mediterranean.

Gen. 3. *Regalecus* of Ascan.—No anal nor caudal fins; and the ventral are reduced to long filaments. *Gymnetrus* remisses of Schn.

*G. russelii* of Shaw.

Gen. 4. *Gymnetrus* of Blum.—A single fin upon the back, and co-extended with it

*G. cepedianus* of Risso.

Gen. 5. *Tachypterus* of Gouan.—Dorsal very long and supported by round rays, of which the anteriors are toothed like a saw.

*T. tenia* of Schn.; *cepola tachyptera* of Gmelin.

Gen. 6. *Gymnogaster*.—Destitute of ventral as well as of anal fins.

*G. arcticus*.

Second division.—Snout pointed and the gape deeply riven.

Gen. 1. *Trichiurus*.—Teeth long and barbed; tail terminating in a slender filament; stomach long and thick; cæcal appendages numerous; intestine straight; swimming bladder large and simple.

*T. lepturus*.

Gen. 2. *Lepidotus*.—Differ from the *trichiurus* in having a caudal fin of the ordinary shape.

*Trichiurus caudatus* of Vandellius; *Iustianicus* of Shaw; *ziphethica* tetradens of Montague.

Gen. 3. *Stylephorus* of Shaw.—Upon the end of the tail, which is extended into a filament longer than the body, there is a fin distinct from the first dorsal which is nearly co-extended with the body.

*S. chordatus* of Shaw.

#### Family 2. Gobioides.

Dorsal spines slender and flexible; intestinal canal ample, equal, and without cæcal appendages; swimming bladder none.

BLENNII. Ventral fins placed before the pectoral and composed of two rays only; stomach thin, and without cul-de-sac.

Gen. 1. *Blennius*.—Tentacula under each eye-brow.

*B. ocellaris* of Blumenbach

Gen. 2. Membranous prominence upon the vertus.

Gen. 3. *Pholis*. Without either crest or tentaculum.

Gen. 4. *Clinus*.—Snout more obtuse than any of the others.

Gen. 5. First rays of the dorsal distinct; small bundles about the eye-brows.

Gen. 6. First rays of the dorsal extended upon and forming a rayed crest upon the ventral.

Gen. 7. *Centronotus* of Schn.—Ventral fins scarcely perceptible.

Gen. 8. *Opithognathus* of Cuvier.—Maxillary bones very large, and extended behind into a sort of long flat whiskers.

*O. sonneratii* of Cuvier.

Gen. 9. *Anarrhichas* of Linné.

Gobii. Branchiostegous membrane with only four rays. Stomach without cul-de-sac or cæcal appendages. Males with an appendage behind the anus. Some of the species are viviparous.

Gen. 1. *Gobius*.

*G. niger* of Linné.

Gen. 2. *Gobioides* of Lacep.—Dorsal fins united.

Gen. 3. *Tanioides* of Lacep.—Eyes obliterated.

Gen. 4. *Periophthalmus* of Sch.—Eyes furnished with eye-lashes.

Gen. 5. *Elestris*.—Ventral fins distinct; eyes crossing; branchial membrane with six rays.

Gen. 6. *Sillago* of Cuvier. Mouth protractile, furnished with fleshy lips; opercula armed with a small spine; preopercula slightly toothed.

*S. acute* of Cuvier.

*S. domina* of Cuvier. } Indian Sea.

CALLIONYMI.—Branchial aperture reduced to a small orifice. Ventral fins under the throat, larger than the pectoral.

Gen. 1. *Trichonotus* of Schn.—Body very much elongated; with two rays of the dorsal lengthened into bristles.

*C. avacunculus*.

Gen. 2. *Comephorus* of Lacepede.—Snout oblong, broad, and depressed.

*C. Baicalensis*.

#### Family 3. Labroides.

Body oblong, scaly; one dorsal, supported by strong spines, furnished oftentimes with a membranous lappet: lips fleshy; intestinal canal without or with two very small cæcal appendages; the swimming bladder strong.

#### LABRI.

Gen. 1. *Labrus*.

*L. vetule*.

Gen. 2. *Sulis*.

*L. sulis*.

Gen. 3. *Crenclabrus*.—Distinguished from the *labrus* in having the preopercula denticulated.

Gen. 4. *Coricus* of Cuvier. Mouth very protractile.

Gen. 5. *Cheilinus* of Lacepede.—*Labrus* with a scaly head.

Gen. 6. *Epibulus* of Cuvier.—Mouth suddenly forming a tube.

*Sparus insidiator*.

Gen. 7. *Elops*.—Head quite smooth; mouth assuming the form of a tube by the prolongation of the surrounding parts.

Gen. 8. *Novacula* of Cuvier.—Similar to the *labri* in the form of the body, but the forehead descends suddenly in an almost vertical line.

Gen. 9. *Chromis*.—Lips and intermaxillaries protractile; vertical fins filamentous.

*Sparus chromis* of Linné.

Gen. 10. *Scarus* of Linné.

Gen. 11. *Labrax* of Pall.—Very long; furnished with ciliated scales.

#### Family 4. PERCÆ. See PERCÆ.

#### Series 1. SPAROIDES.

A dorsal fin running the greater part of the length of the back.

Gen. 1. *Smaris*.—Jaws extensible into a sort of tube by means of the long pedicles of their intermaxillary bones; body nearly in the form of a herring; jaws furnished with a row of fine teeth, with some rows behind it.

*Sparus mœna* of Linné.

*S. smaris* of Linné.

Gen. 2. *Boops* of Cuvier.—Jaws scarcely extensible; a simple row of teeth in each jaw.

*Sparus sulpa* of Linné.

*S. melamurus*.

*S. boops*.

Gen. 3. *Sparus* of Cuvier.—Jaws scarcely extensible; molar teeth round.

Gen. 4. *Sargus* of Cuvier.—Incisors like those of man.

*Sparus sargus* of Linné.

Gen. 5. Four or six conical teeth in each row; the rest paved.



Gen. 6. *Pagrus* of Cuvier.—A great number of small teeth forming a brosse before.

*Sparus erythrinus*.

*S. argenteus* of Schn.

Gen. 7. *Dentex* of Cuvier.—Jaws armed before with some long and stout hooks.

*Sparus dental* of Linné.

Gen. 8. *Lutjanus*.—Preoperculum with denticulations; operculum without a spine.

Gen. 9. *Diapoe* of Cuvier.—A deep notch for the articulation of the interoperculum.

Gen. 10. *Cirrhitis*.—Similar to the *lutjanus*, but the lower rays of the pectoral fins are thicker and longer than the rest and free at their extremities.

Gen. 11. *Bodianus*.—Preoperculum without denticulations; operculum with spines.

Gen. 12. *Serranus*.—Preoperculum with denticulations; operculum with spines.

Gen. 13. *Plectromas* of Cuvier.—Teeth or spines of the preoperculum thick and directed before.

Gen. 14. *Cantharus*.—Numerous ranks of teeth forming a carded surface.

Gen. 15. *Cichla* of Schn.—Teeth carded; mouth more protractile than the last; operculum without spines and teeth.

Gen. 16. *Pristopomas* of Cuvier.—Separated from the *lutjanus* by Cuvier; body high compressed; scales large; mouth small; edge of the preoperculum denticulated.

Gen. 17. *Scolopsis*.—The characters of the last, save in the suborbital which is spiny behind.

Gen. 18. *Diagramma* of Cuvier.—Six large pores under the lower jaw.

Gen. 19. *Cheilodactylus* of Lacepede.—Inferior rays of the pectoral fins in a measure springing from the membrane.

Gen. 20. *Micropterus* of Lacepede.—The last soft rays of their dorsal fin detached.

Gen. 21. *Priacanthus*.—Preoperculum denticulated and terminated below in a spine which is also denticulated.

Gen. 22. *Polyprion*.—A denticulated ridge, terminated by two or three points under the operculum.

Gen. 23. *Holocentrus* of Artedi.—Scales thick, hard, and denticulated; a strong spine at the base of each preoperculum; operculum with one or two others at its upper edge.

Gen. 24. *Acerina* of Cuvier.—Head without scales, and pitted.

*Perca cernua* of Linné.

Gen. 25. *Steliferus* of Cuvier.—Head like the last; snout inflated.

#### *Scorpane.*

Gen. 1. *Scorpane*.

*S. scrofa* of Linné.

*S. porca* of Linné.

*S. dactylapteras*.

*S. gibbosa*.

Gen. 2. *Synanceia* of Schn.—The gape and eyes directed upwards.

Gen. 3. *Pterois*.—Head with divers fleshy appendages.

Gen. 4. *Tanianotis* of Linné.—Body compressed; dorsal fin forming a large riband upon the back.

#### Series 2. *PERCÆ.*

Dorsal fin deeply divided generally into two separate ones.

Gen. 1. *Atherina* of Linné.

Gen. 2. *Sphyræna* of Lacep.

*Esox sphyræna*.

Gen. 3. *Paralepis* of Cuvier.—Second dorsal so frail and small that it might almost be taken for an adipose fin.

Gen. 4. *Mullus*.

Gen. 5. *Pomatomus*.—Eyes of an unusual size; scales large and caducous.

Gen. 6. *Mugil*.

#### *Perca Propria* of Linné.

Gen. 1. *Perca*.

*P. fluviatilis*

*P. labrax*.

Gen. 2. *Centropomus*.

*Perca nilotica*.

Gen. 3. *Enoplosis* of Lac.—The external appearance of *chaetodons*.

Gen. 4. *Prochilus* of Cuvier.

Gen. 5. *Sunder*.—Lucio *perca*.

Gen. 6. *Terapon* of Cuvier.—An incompressible between the spiny and soft part of their dorsal fin.

Gen. 7. *Apogon* of Lacep.—Differ from the surmulletts in the want of cirrhi.

#### *Sciæna*.

Gen. 1. *Zingel*.

*Perca zingel*.

Gen. 2. *Umbrina* of Cuvier; *sciæna cirrhosa* of Linné.

Gen. 3. *Lonchurus*.—Differ from the last genus in a pointed tail.

Gen. 4. *Sciæna*.

*Sciæna umbra*.

*L. aquila*.

Gen. 5. *Pogonias* of Lacet.—Numerous small filaments under the lower jaw.

Gen. 6. *Otolithus* of Cuvier.—Snout not inflated; teeth of the last row stronger.

Gen. 7. *Ancylodons* of Cuvier.—Head bare of scales, compressed, armed with teeth, and spines.

Gen. 8. *Percis* of Schn.—Head depressed; body elongated.

Gen. 9. *Trachinus* of Linné.

#### Series 3.

Head plated; suborbital region distinguished by its hardness and solidity.

Gen. *Uranoscopus* of Linné.

#### *Trigle*.

Gen. 1. *Trigla*.

*T. hirundo* of Linné.

*T. lyra*.

Gen. 2. *Peristedion* of Lacet.—Body furnished with bony plates.

Gen. 3. *Dactylopterus*.—*Trigla voliterus* of Linné.

Gen. 4. *Cephalacanthus*.—*Gasterosteus spinarella* of Linné.

*Monocentris* of Schn.—A genus intermediate between the *sciæna* and the *Trigle*.

#### *Cotti*.

Gen. 1. *Cottus*.

*C. gobio* of Linné.

*C. scorpius* of Lin.

Gen. 2. *Aspidophorus* of Lacepede.—Body covered with scaly plates; squared like paving stones.

*Cottus cataphractus* of Bl.

Gen. 3. *Platycephalus* of Bl.—Head flattened; the large wide suborbitals resembling a buckler upon the disk.

Gen. 4. *Batrachus* of Schn.—Head flattened, wider than the body; gape and gill openings fairly cloven; lips generally furnished with filaments.

#### Series 4. *LOPHII*.

Skin without scales; pectoral fins supported

as it were by two arms; skeleton cartilaginous; stomach wide; intestine short.

Gen. 1. *Lophius*.

*L. juxatorius* of Linné.

Gen. 2. *Antennarius*.—Free rays upon the head, often terminated by a crest.

Gen. 3. *Malthe*.—Head in a wonderful manner widened and flattened, principally by the putting out of the suboperculum.

#### Family 5. SCOMBEROIDES.

Scales small; oftentimes imperceptible except towards the termination of the lateral line, where they form a rising ridge; and sometimes this ridge is formed by the skin itself, and is then supported by the transverse apophyses of one or two vertebrae. Intestines ample; stomach a cul-de-sac; cæcal appendages generally numerous.

##### First series of genera.

#### SCOMBRI.

Gen. 1. *Scomber*.

*S. scombrus*.

*S. colias*

Gen. 2. *Thynnus*.—First dorsal prolonged nearly as far as the second.

*Scomber thynnus*.

*S. sarda*.

*S. pelamys*.

*S. Mediterranea*.

Gen. 3. *Orcynus* of Cuvier. —Pectoral fins nearly as far as the anus.

Gen. 4. *Caranx* of Lacepede. —Each of the imbricated scales, forming a lateral line, is armed into a ridge.

*C. trachurus*.

Gen. 5. *Citula*. —Differ from the *caranx* in having their dorsal and anal fins elongated.

Gen. 6. *Seriola* of Cuvier. —Scales of the lateral line scarcely forming a ridge.

Gen. 7. *Nomeus* of Cuvier. —Ventral fins very large and wide, and attached to the belly by their internal edge.

VOMERES of Cuvier. Transverse diameter or width exceeding the length; scales scarcely visible except upon the lateral line.

Gen. 1. *Selena* of Lec. —Anterior dorsal short.

Gen. 2. *Gallus*. —Ventral fins long

Gen. 3. *Argyreopsis*. —Dorsal and anal elongated.

Gen. 4. *Vomer*. —All the fins short.

TETRAGONURUS. Body elongated; two prominent crests upon each side at the base of the caudal fin.

##### Second series of genera.

Distinct spines in the room of the first dorsal.

RHYNCOBELLE of Schn. Body elongated and deprived of ventral fins.

Gen. 1. *Macronathus* of Lacepede.

Gen. 2. *Mastacembelus* of Gron.

#### GASTEROSTEI.

Gen. 1. *Gasterosteus* of Cuvier.

*G. aculeatus*.

Gen. 2. *Spinachia* of Cuvier.

*Gasterosteus spinachia* of Linné.

Gen. 3. *Centronotus*.

*Gasterosteus ductor* of Linné.

Gen. 4. *Lichia* of Cuvier. —Lateral line with keel or armature.

Gen. 5. *Trachinotes*. —Points of their dorsal and anal fins prolonged.

Gen. 6. *Blepharis*. —Body nearly in the form of a perfect rhombus; anal fin with long filaments.

##### Third series of genera.

One dorsal fin; belt carded.

ZEI. Body oval; jaws protractile.

Gen. 1. *Zeus*.

*Zeus faber* of Linné.

*Z. aper*.

Gen. 2. *Equula* of Cuvier. —Row of species on each side of the anal and caudal.

Gen. 3. *Mene*. —Shoulders and spines developed into a prominence.

Gen. 4. *Atropus* of Cuvier. —Lower jaw longer than the snout.

*Brama atropus* of Schn.

Gen. 5. *Trachichthys*. —Dorsal fin short, tall and pointed.

*Lampris*. Retsius.

*Zeus linna*.

XIPHIE of Linné.

Gen. 1. *Xiphias*.

*X. gladius*.

Gen. 2. *Istiophorus*. —Anterior dorsal forming a kind of sail.

#### CORYPHÆNÆ.

Gen. 1. *Centrolophus*. —A spiry protuberance before the dorsal, sensible to the touch.

Gen. 2. *Oligopodes* of Risso. —Dorsal and anal united to the caudal.

Gen. 3. *Coryphæna*.

*Coryphæna hippurus*.

Gen. 4. *Pterachus* of Gronov. —Remarkable for the extraordinary height of the dorsal and anal.

##### Fourth series of genera.

One dorsal; teeth cutting placed in a single row.

*Amphacanthus* of Schn. —A short spine at each edge of the ventral fin.

ACANTHURI. A strong sheathing spine at each side of the tail. Our old acquaintances at Oahu.

Gen. 1. *Apisurus*.

Gen. 2. *Proinurus*.

Gen. 3. *Naseus*. —Commeos. Differ from the rest in having the teeth conical.

#### Family 6. SQUAMIPENNÆ.

A considerable portion of the fins upon the back and anus covered with scales, which consequently are in a manner confounded with the rest of the body. Intestines long; cæcal appendages numerous.

##### First series of genera.

#### CHAETODONTES.

Gen. 1. *Chelmons* of Cuvier.

Gen. 2. *Platax*.

Gen. 3. *Heniochus*.

Gen. 4. *Ephippus*.

Gen. 5. *Chaetodopterus* of Latham.

Gen. 6. *Holacanthus*.

Gen. 7. *Pomacanthus*.

*Psettus* of Commerson. Each ventral replaced by a small spine.

*Osphronemi* of Commerson. Branchiostegous, membrane scaly.

Gen. 1. *Osphronemus* of Commerson. —Ventral and dorsal with many spines.

*Osphronemus olfare*.

Gen. 2. *Trichogaster* of Schn. —No spines upon the ventral fins.

TOXITES. *Labrus jacobulus* of Shaw.

KURTUS. B. Scales sometimes very fine.

*Kurtus indicus*.

ANABAS. No preoperculum, which distinguishes it at first sight.



*Perca scandens* of Daldorff.

*Cæstro*. Dorsal and anal fins fairly covered with scales.

*BRAMA*. Forehead descending vertically.

Sparus raii of Bl.

#### Second series of genera.

Teeth in a single row and very regular, and nothing akin to horse hair.

#### STROMATEI.

Gen. 1. *Stromateus* of Linné.

Gen. 2. *Fratola* of Cuvier.—Scales of the body and fins so thin that they cannot be seen but when the skin is dried.

*Stromateus fratola* of Linné.

Gen. 3. *Seserinus*.—First spine of the dorsal and anal bent forwards.

*PIMELEPTERI*. Both of the equal teeth prominent towards the mouth, that the membranous lips may cover them; scales soft, which cover the fins.

Gen. 1. *Kyphosis*.—Differ from the last in having a prominence before the dorsal fin.

Gen. 2. *Plectrotychus* of Lacepede.—A row of teeth just appearing through the gum,

Gen. 3. *Glyphisodon*.—Lateral line terminates opposite to the end of the dorsal fin; preoperculum not denticulated.

Gen. 4. *Pomacentrus*.—Lateral line the same; preoperculum denticulated.

Gen. 5. *Amphiprion*.—Sub-orbitals and the four pieces of their opercula denticulated.

Gen. 6. *Premnas* of Cuvier.—Strong spines upon the suborbital plate.

#### Third series of genera.

Two dorsal fins without a scaly thickness, so that we might, as Cuvier remarks, refer them to the second series of the family of perches.

Gen. 1. *Temnodon*.—A row of compressed teeth in each jaw; first dorsal frail and low; the second as well as the anal are scaly.

Gen. 2. *Egus* of Bl.—Body elongated and tapering to the end of the tail; head flat; rays of the first dorsal prolonged; swimming bladder very large and stout; stomach moderate size; cæcal appendages five to six in number.

Gen. 3. *Polynemus* of Linné.

#### Family 7. ROSTRO FIGURA FISTULÆ.

Characterised by the muzzle being lengthened into a tube by the prolongation of the ethmoid vomer, of the preopercula, interopercula, pterygoid, and tympanique, at the end of which we find the mouth composed as usual of the intermaxillary, maxillary, and palatine bones, and of the mandibles.

#### FISTULARIÆ.

Gen. 1. *Fistularia*.—One dorsal fin; from between the two lobes of the dorsal springs a filament which is sometimes as long as the body.

Gen. 2. *Aulostomus*.—Dorsal fin preceded by several free spines.

*Centrisci*. With a tubulous muzzle, but without the tubulous muzzle of the fistulariæ.

Gen. 1. *Centriscus*.

*Centriscus scolopax* of Linné.

Gen. 2. *Centrisile*.—Back plated, with wide scaly pieces.

*Centriscus nutatus*.

*C. velitaris*.

## PART II.

### ANIMALIA INVERTEBRATA.

#### MOLLUSCÆ.

The molluscous animals are destitute of a bony skeleton, and of a vertebral canal; their nervous system is not united into a spinal marrow, and only exists in the form of medullary masses, which are dispersed in different parts of the body: of these the principal is called the brain, and is seated across the œsophagus, which it surrounds like a nervous collar. The circulation of the molluscæ is always double, that is to say, their pulmonary circulation always makes a semi and complete circulation. This function is always assisted at least by a fleshy ventricle, placed, not as in the fish between the veins of the body and the arteries of the lungs, but, on the contrary, between the veins of the lungs and the arteries of the body. This assemblage is divided by Cuvier into six classes, with reference to the general form of the body, which bears a certain ratio to the complication of the internal organisation.

#### CLASS I.—CEPHALOPODA.

The body is in the form of a sac opened before, containing the branchiæ, whence springs a head, which is fairly developed and crowned with some processes that are long and fleshy, by means of which they move from place to place, and lay hold on objects.

##### Group 1. Octopi of Lam.

This group has only two small grains of a horny substance on the sides of their dorsal thickness, and the sac, being without fins, represents an oval purse.

Gen. 1. *Polypus* of Aristotle.—The cotyledons alternate in two rows upon the length of each foot. *Sepia octopoda* of Linné.

*S. rugosa*.

Gen. 2. *Eledon*.—Only one row of cotyledons upon the length of each foot.

*Poulpe musqué* of Lam.—Remarkable for its musky odor.

##### Group 2. Loligones.

An ensiform plate of horn upon the back; their sac has two fins towards its point, &c.

Gen. 1. *Loligo*.—*Sepia loligo* of Linné.

*Loligo sagitta* of Lam.

*Sepia, media* of Linné.

*S. sepiola* of Linné.

Gen. 2. *Sepia*.—A fleshy fin, running the whole length on each side of the sac; shell oval, thick, round, composed of an infinitude of very thin calcareous plates.

*Sepia officinalis*.

##### Group 3. Nautili.

Gen. 1. *Spirula*. *Nautilus spirula*.

Gen. 2. *Nautilus*. *N. pompilius* of Linné.—Embracing a great many genera depending upon the position of the siphon.

##### Group 4. Blemnites.

##### Group 5. Hippurites.

The cornucopie of Thoms.

##### Group 6. Ammonites.

##### Group 7. Nummulites.

##### Group 8. Argonauta.

#### CLASS II.—PTEROPODA.

Body without an opening; the head is destitute of appendages, or at least has them very small,

the principal organs of movement are two wings or membranous fins, seated upon the sides of the neck, over which the branchial tissue is often spread.

*CLIO.*

*CLEODORUS.*

*Cymbulia.*

*Limacina.*

*Pneumodermom* of Cuvier.

*Hyclea* of Lam.

### CLASS III.—GASTEROPODA.

Creep upon the fleshy disk of their belly, which is sometimes though rarely compressed into a fin; they have almost always a distinct head before.

#### ORDER I.—BRANCHIIS NUDIS.

Without shell and bear naked branchiæ of different forms upon some part of their back. They are all hermaphrodites, and reciprocally unite in the act of generation.

*Doris* of Cuvier.

*Polycera* of Cuvier.

Distinguished from the *Doris*, in having membranous plates, which cover them in the moments of danger.

*Tritonia* of Cuvier.

*Tethys* of Linné.

*Scyllæa.*

*Glaucus* of Forster.

*Ealidia* of Cuvier.

*Tergipes* of Cuvier.

#### ORDER II.—BRANCHIIS INFERIS.

Branchiæ in two long series of leaves upon the sides of the body, beneath the edge of the advanced mantle.

*Ptyllidia.*

*Diplyllidia.*

#### ORDER III.—BRANCHIIS RECTIS.

Branchiæ attached to the right side, or upon the back, in the shape of leaflets more or less divided; the mantles generally cover them; almost always contain in their substance a small shell.

*Pleurobranchus* of Cuvier.

*Aplysia* of Linné.

*Dolabella.*

*Notarchus.*

*Acera.*

*Bullæa.*

#### ORDER IV.—PULMONIBUS.

The animals of this order respire air through the medium of a lateral aperture, which can be opened and shut at the pleasure of the animal.

##### SECT. I.—TERRESTRIAL.

###### Family 1. LIMACES.

Gen. 1. *Limax.*

Gen. 2. *Testacella.*

Gen. 3. *Parmacella.*

###### Family 2. HELICES.

Gen. 1. *Helix.*

Gen. 2. *Vitrina.*

###### Family 3. BULIMI.

Gen. 1. *Bulimus.*

Gen. 2. *Pupa.*

Gen. 3. *Scarabus.*

Gen. 4. *Chondrus.*

Gen. 5. *Succinea.*

###### Family 4. CLAUSILIA.

###### Family 5. AGATHIN

##### SECT. II.—AQUATIC.

Gen. 1. *Onchidium.*

Gen. 2. *Planorbis.*

Gen. 3. *Lymnæus.*

Gen. 4. *Physa.*

Gen. 5. *Auricula.*

Gen. 6. *Conovula* of Lam.

Gen. 7. *Tornatella* of Lam.

Gen. 8. *Pyramidella* of Lam.

#### ORDER V.—BRANCHIIS PECTEN REFERENTIBUS.

Branchiæ composed of numerous leaflets or laciniae ranged in a parallel direction like the teeth of a comb. This order embraces almost all the spiral univalve, and many simply conical.

Family 1. *TROCOIDES.*

Family 2. *BUCCINOIDES.*

Family 3. *DES SIGNETS.*

#### ORDER VI.—BRANCHIIS SCUTUM REFERENTIBUS.

Form and position of the branchiæ and the general shape of the body like the last, but the sexes are united, and they fecundate themselves.

*Halyotis*, &c.

#### ORDER VII.—ANDROGINA.

Branchiæ in the shape of small leaves or pyramids attached to a cord more or less completely at the edges of the mouth; they resemble the second order, but are distinguished from them by being hermaphrodite.

*Patella.*

*Chiton.*

### CLASS IV.—ACEPHALA.

Sine capite. No apparent head; mouth concealed in the bottom or within the folds of the mantle.

#### ORDER I.—ACEPHALA TESTACEA.

Branchiis cum foliis quatuor.

Family 1. *OSTREÆ.*

Family 2. *MYTILACEA.*

Family 3. *BENETIERS.*

Family 4. *CARDIACEA.*

Family 5. *LES ENFERMES.*

#### ORDER II.—ACEPHALA SINE TESTA.

Branchiæ, though they assume different shapes, are differently divided into four leaflets.

Family 1. *THALIA, SALPA, DAGYSA, ASCIDIA.*

Family 2. *BOTRYLLUS, PYROSOMA, POLYCHYIUM.*

#### CLASS V.—BRANCHIOPODA.

Mantle with two lobes; branchiæ consisting on y of small leaflets ranged round about each lobe upon the inner surface; in the room of feet they have two fleshy arms, furnished with numerous filaments.

*Lingula.*

*Terebratula.*

*Orbicula.*

#### CLASS VI.—CIRRHIOPODA.

Mouth with lateral jaws; the longitude of the belly furnished with threads called cirrhi, disposed in hairs composed of a multitude of minute articulations, which represent a kind of feet or fins like those under the tails of many of the crustacea; head seated in their dorsal region, and their branchiæ are upon the sides.

Gen. 2. *Anatifu.*

*Lepas anatifera.*

Gen. 2. *Balanus.*

*Lepas balanus*



## PART III.

## ANIMALIA ARTICULATA.

Body surrounded by jointed rings which answer the purpose of a bony skeleton. Brain is placed upon the œsophagus, and furnishes those parts with nerves which adhere to the head. The two chords which embrace the œsophagus are continued along the belly, and unite from time to time into double knots or ganglia, whence the nerves are sent to different parts of the body. Each ganglion seems to perform the function of the brain for the surrounding parts.

## CLASS I.—ANNELIDA.

Body soft, more or less elongated, divided into a very considerable number of segments.

## ORDER I.—TUBICOLA.

- Gen. 1. *Serpula*.
- Gen. 2. *Sabella*.
- Gen. 3. *Terebella*.
- Gen. 4. *Amphitrite*, &c.

## ORDER II.—BRANCHII SUPER DORSO.

Their organs, and particularly their branchiæ, are distributed nearly equally along the body, or at least in the medial line.

*Group Nereides*, including two or three genera.

- Gen. 1. *Spio*.
- Gen. 2. *Aphrodita*.
- Gen. 3. *Amphinoma*.
- Gen. 4. *Arenicola*.

## ORDER III.—SINE BRANCHIIS.

Without any apparent organ of respiration, and they appear to respire by the surface of the skin.

## Family 1. SETIS INSPECTA.

- Gen. 1. *Lumbricus*.
- Gen. 2. *Thalassema*.—*Limbrus echiurus* Gmelin.

*Group Naidæ*.

## Family 2. NUDA.

- Gen. 1. *Hirundo*.
- Gen. 2. *Gordius*.

## CLASS II.—CRUSTACEA.

The situation and form of their branchiæ, the manner in which the head is pointed to the trunk, and the organs of mastication, will furnish foundations upon which we may erect the following orders:—

## ORDER I.—DECAPODA.

Bear a feeler upon each mandible; have the eyes moveable and the head confounded with the trunk; the branchiæ pyramidal; the leaflets or plumose laciniæ seated at the outer base of the nippers, and the feet properly so called, and are concealed under the edges of the shell: of the first family of this order the genus *cancer* may stand as a sample.

## ORDER II.—STOMAPODA.

Bear also a feeler upon each mandible; have the eyes also moveable; but the head is distinct from the trunk, and is divided into two parts, of which the outer bears the antennæ and the eyes; the branchiæ, in form of pannicles or bundles, are suspended under the tail, which is very large, behind each pair of finned feet with which it is furnished underneath

*Squilla*.

## ORDER III.—AMPHIPODA.

Bear also a feeler upon each mandible; but their eyes are immoveable; the head is distinct from the trunk and of one piece; the branchiæ are vesicular, and are seated at the inner base of the feet, with the exception of the first pair.

*Gammari*.

## ORDER IV.—ISOPODA.

Mandibles without feelers, and the mouth always composed of several maxillæ, of which the lower imitate a lip with two feelers. The branchiæ are commonly seated under the abdomen; all the feet are proper for locomotion or pretension.

*Onisci*.

## ORDER V.—BRANCHIOPODA.

Mandibles without feelers; the mouth is sometimes in the form of a beak, sometimes of several maxillæ; but the two lower ones have the appearance of a lip with two palpi; feet in form of fins; the branchiæ are attached to a part between them; the body is generally covered with a shell with which the head is confounded.

*Monoculi*.

## CLASS III.—ARACHNIDA.

Head destitute of antennæ; the external orifices placed under the belly, or the posterior extremity of the breast, lead in some genera to sacs which occupy the place of lungs; in other genera there exist true tracheæ, which are distributed to every part of the body.

## ORDER I.—PULMONARIA.

Furnished with pulmonary sacs, and six or eight eyes; they have a pair of mandibles, two maxillæ, two feelers, and one lip.

## Family 1. ARANÆÆ.

## Family 2. PEDIPALPÆ.

Palpi like advanced arms.

*Tarentulæ*.

*Scorpiones*.

## ORDER II.—TRACHEATA.

Organ of respiration ranged and ramified; eyes from two to four.

## Family 1. SCORPIONES FALSI.

*Solpuga*.

*Chelifer*.

## Family 2. PYCNOGONIDA.

Trunk composed of four segments; truncated at each extremity by a tubular joint.

*Pycnogonum*, &c.

## Family 3. PHALANGITA, PHALANGIUM, TIRO,

*ACAREUS*, &c. &c.

## CLASS IV.—INSECTA.

ORDER I.—MYRIAPODA. *Julus*.ORDER II.—THYSANURA. *Lepismæ*.ORDER III.—PARASITA. *Pediculus*.ORDER IV.—SUCTORIA. *Pulex*.

## ORDER V.—COLEOPTERA.

## ORDER VI.—ORTHOPTERA.

## ORDER VII.—HEMIPTERA.

## ORDER VIII.—NEUROPTERA.

## ORDER IX.—HYMENOPTERA.

## ORDER X.—LEPIDOPTERA.

## ORDER XI.—RHIPIDPTERA.

## ORDER XII.—DIPTERA.

As the subjects pertaining to this class have been treated at considerable length, in the article ENTOMOCLOGY, the ingenuity of the reader it is trusted by drawing supplies of matter thence will com-

pensate our brevity, and will spare us a particular discussion of the elements which compose this subdivision of the animal kingdom.

#### PART IV.

##### ZOOPHYTA.

###### CLASS I.—ECHINODERMATA.

###### ORDER I.—PEDICELLATA.

Echini.  
Asteriæ.

###### ORDER II.—APODA.

Sipunculus of Gmelin.

###### CLASS II.—ENTOZOA OR INTESTINALIA.

###### ORDER I.—CAVATARIA. Nematodea.

Ascaris.  
Lernæa of Linné.

###### ORDER II.—PARENCHYMATA.

Fasciola.  
Tænia.

###### CLASS III.—ACALEPHÆ of Cuvier.

###### ORDER I.—FIXÆ.

Actinia.

###### ORDER II.—LIBERÆ.

Medusa of Linné.  
Beroë.  
Porpita.  
Eudora.

In conformity to our promise of regarding the complexity of form as it graduated downwards, we might stop here, since the eudora present nothing to our sight but the similitude of a crown with a

cross upon it, without any aperture for the intermission of nutriment; but it will be expedient after the example of Cuvier to add the two following classes, which will render the enumeration complete:—

###### CLASS IV.—POLYPI.

###### ORDER I.—POLYPI NUDI.

Hydra.

###### ORDER II.—POLYPI PEDATÆ.

Tubipora.  
Sertularia.  
Cellularia.  
Flustrum.  
Carallina.  
Gorgonia.  
Isis.  
Corallum.  
Madrepora.  
Alcyonum.  
Spongia.

###### CLASS V.—INFUSORIA.

We have thus given a cursory outline of the leading divisions and sub-divisions of the animal kingdom, unfolded the general principles of classification, and would gladly have dealt out our illustration with a more liberal hand had not our limits withheld us; but it is hoped that the student of this department of science will, from a perusal of this article, derive some important hints towards the method of integrating the gleanings of his daily experience, and of acquiring the habit of generalising from the principles or facts of natural history which jointly constitute the logic of zoology.

**ZOONIC ACID.** ‘Berthollet,’ says Dr. Thomson, ‘has obtained a peculiar acid by distilling animal and vegetable substances, to which he has given the name of zoonic acid.—Ann. de Chim. xxvi. 86. He procured it by distilling the gluten of wheat, the yeast of beer, bones, and woollen rags; and concludes, therefore, that it may be produced by the distillation of all animal substances. To obtain this acid pure, he mixed lime with the distilled liquid, after having separated the oil, which it always contains (for the product of the distillation of animal substances is chiefly oil and carbonate of ammonia). He boiled this mixture till the carbonate of ammonia was exhaled: he then filtered it, added a little more lime, and boiled it again till the smell had gone off entirely. The liquor, which now contained only zoonite of lime, he filtered again, and then added a little water, impregnated with carbonic acid, in order to precipitate any lime which might happen to be dissolved in the liquid without being combined with the zoonic acid. After concentrating the zoonate of lime, he mixed it with phosphoric acid, and distilled it in a retort. At a heat nearly equal to that of boiling water, the zoonic acid passes over in a state of purity. The zoonic acid has an odor like that of meat when frying, and it is actually formed during that process. It has an austere taste. It gives a red color to paper tinged with turnsol. With alkalis and earths it produces salts which do not appear capable of crystallising. It forms a white precipitate in the solutions of acetite of lead and nitrate of mercury. Part of the

zoonic acid seems to be destroyed by the action of heat during the distillation of the zoonate of lime with phosphoric acid; for the liquor, which is in ebullition, becomes brown, and grows black at the end of the operation. Hence Berthollet concludes that the zoonic acid becomes carbon. The zoonate of silver, when kept, becomes gradually brown: hence he concludes that the acid contains hydrogen. Nothing more is at present known concerning this acid. Trommsdorf supposes it the same with the sebatic acid; but this has not been proved, nor even rendered probable.’—Syst. of Chem. vol. ii. p. 162, 163. Thenard indeed has demonstrated that this supposed new acid of Berthollet’s is only a combination of acetic acid with animal matter.

**ZOONOMIA** (from *ζωον*, an animal, and *νομος*, a law; q. d. the laws of animated nature), the title of an ingenious and admired work of learning and fancy, by Dr. Darwin.

**ZOOPHYTE**, in natural history. See **ZOOLOGY**.

**ZOOTOMY**, of *ζωον*, animal, and *τομω*, I cut, the art or act of dissecting animals, or living creatures. It is therefore the same with anatomy, or rather comparative anatomy. See **ANATOMY**.

**ZOPARITUS**, in ancient geography, a town of Asia, in Melitene, on this side of the Euphrates.—Ptolemy.

**ZOPH**, a town of Syria, twenty-five miles S. S. E. of Jerusalem: also a district on the north part of the government of Diarbekir.

**ZOPHAR**, the Naamathite, one of Job’s three uncharitable friends. See **ELIHU**, and **JOB**.



ZOPISSA (ζωπίσα, Gr.), a fine sort of pitch, anciently prepared with wax and salt.

ZORILLE, in zoology, a species of viverra, or weasel, having the back and sides marked with short stripes of black and white, the last tinged with yellow; the tail long and bushy, partly white and partly black; the legs and belly black. This animal inhabits Peru, and other parts of South America: its pestilential vapor overcomes even the panther of America, and stupifies that formidable enemy.

ZOROASTER, ZOROASTRES, or ZERDUSHT, a celebrated ancient philosopher, said to have been the reformer or the founder of the religion of the magi. It is wholly uncertain to how many eminent men the name of Zoroaster belonged. Some have maintained that there was but one Zoroaster, and that he was a Persian; others have said that there were six eminent founders of philosophy of this name. Ham the son of Noah, Moses, Osiris, Mithras, and others, both gods and men, have by different writers been asserted to have been the same with Zoroaster. Many different opinions have been advanced concerning the time in which he flourished. Aristotle and Pliny fix his date at so remote a period as 6000 years before the death of Plato. According to Laertius he flourished 600 years before the Trojan war: according to Suidas 500. If, in the midst of so much uncertainty, any thing can be advanced with the appearance of probability, it seems to be this:—that there was a Zoroaster, a Perso-Median, who flourished about the time of Darius Hystaspes; and that besides him there was another Zoroaster, who lived in a much more remote period among the Babylonians, and taught them astronomy. The Greek and Arabian writers are agreed concerning the existence of the Persian Zoroaster; and the ancients unanimously ascribe to a philosopher, whom they call Zoroaster, the origin of the Chaldean astronomy, which is certainly of much earlier date than the time of Hystaspes; it seems therefore necessary to suppose a Chaldean Zoroaster distinct from the Persian. Concerning this Zoroaster, however, nothing more is known than that he flourished towards the beginning of the Babylonish empire, and was the father of the Chaldean astrology and magic. All the writings that have been ascribed to Zoroaster are spurious. See MYSTERIES, MYTHOLOGY, and POLYTHEISM.

Dr. Hyde and Dr. Prideaux think that Zoroaster was the same with the Zerdusht of the Persians, who was a great patriarch of the Magians, and that he lived between the beginning of the reign of Cyrus and the latter end of that of Darius Hystaspes. Warburton (*Divine Legation*, vol. ii. part i. p. 8) censures these writers for making an early Bactrian law-giver a late Persian false prophet, and says the whole story of him is mere fable, contradicting all learned antiquity, and supported only by the romantic relations of later Persian writers under the caliphs. Baumgarten likewise (see the *Ancient Universal History*, Supplement, vol. ii. p. 365, &c.) represents it as doubtful whether the Persian Zoroaster ever existed, calls in question the credibility of the oriental writers who gave his history, and makes the whole to be a forgery in later times by the fire-worshippers of Persia.

The title Zoroaster, according to Mr. Bryant, originally belonged to the sun, and was metaphorically bestowed on sacred and enlightened persons.

sonages. Some have thought that the first among men to whom this title was applied was Ham; others have taken him for Chus, for Mizraim, and for Nimrod, and Huetius for Moses: but Mr. Bryant, after examining the primitive characters given of him by different writers, supposes that they concur only in Noah, who was the first deified mortal and the prototype in the Magian worship. This writer supposes that, as the object of the Persian and Chaldaic worship was the sun, and most of their titles were derived thence, Zoroaster denoted Sol Asterius; Zor being the sun, and Aster signifying star. The abbé Fouche, in a series of memoirs, inserted in the 25th, 26th, 27th, 28th, 30th, and 31st vols. of the *Histoire de l'Académie Royale des Inscriptions et Belles Lettres*, &c., Paris, has given an ample account of the religion of the Persians. This author maintains, on the authority of Pliny, that the most celebrated Zoroaster was an ancient sage, who lived under Cyaxares, king of the Medes, restored the worship of fire, and was revered by the Persians as a celestial prophet.

ZOROBABEL. See ZERUBBABEL.

ZOSIMUS, a Roman historian, who lived in the fourth and fifth centuries. Six books of his History are extant; in the first he runs over the Roman affairs very succinctly from Augustus to Dioclesian; the other five are more diffuse. Zosimus was a zealous Pagan; whence he often inveighs bitterly against the Christian princes, Constantine the Great, and Theodosius I. His History was published with the Latin version of Leunclavius at Frankfurt, 1590, with the other minor historians of Rome, in folio; and at Oxford in 8vo. 1679.

ZOSIMUS (Pope) was a native of Greece, and elevated to the pontifical throne in March 417, as successor to Innocent I. Cælestius, the chief disciple of Pelagius, presented his confession of faith to this pope, who approved it, and admitted him to communion. That of Pelagius was likewise approved. The African bishops, however, who were hostile to the Pelagian doctrine, interested the emperor Honorius in their favor, and obtained from the pope an anathema of the doctrine of Pelagius and Cælestius, with a sentence of excommunication if they refused to abjure their tenets. A council was assembled, in which other bishops, who concurred in the Pelagian creed, were degraded. The fluctuations and inconsistencies of Zosimus's conduct much depreciated his character and office, and furnished abundant reason for questioning his infallibility. This pope died in December 418, leaving the character of an able, but hasty, tenacious, and imperious, man of business. His thirteen epistles, that are extant, are written with elegance. He was canonised, as Bower says, by a mistake of cardinal Baronius, who supposed him to be a saint Zosimus in the martyrology of Bede.

ZOSITERPUM, in ancient geography, a town of Thrace, in the province of Rhodope.—Procopius.

ZOSINE, the wife of Tigranes, king of Armenia, who was led in triumph by Pompey.—Plut.

ZOSTER, a town, harbour, and promontory, of Attica.—Cic. ad Atticum.

ZOSTERA, grass wrack, in botany, a genus of plants in the class gynandria, order polyandria, and in the natural system arranged under the second order, piperitæ. The spadix is linear, and fertile only on one side; there is no calyx nor corolla; the stamina are alternate; the seeds solitary and alternate. There are two species, viz. 1. *Z. marina*,



the sea grass wrack. 2. *Z. oceanica*, grass wrack of the ocean. They are both foreign plants.

**ZOSTERIA**, a surname of Minerva.

**ZOTHAUSTES**, an ancient legislator of the Arimaspi.

**ZOUCH** (Richard), a civilian, born at Ansley in Wilts, and educated at Winchester and Oxford. He became an advocate, chancellor of Oxford, and judge of the admiralty. His chief work is, *A Vindication of the Jurisdiction of the Admiralty against Coke*, 8vo. He wrote other tracts on law, and died in 1660.

**ZOUCH** (Thomas), D. D., a learned divine, born in 1737, at Sandal, near Wakefield, in Yorkshire, was removed in 1757 from the school of the latter place, to Trinity College, Cambridge. In 1763 he was chosen fellow of the college, which in 1770 presented him to the rectory of Wycliffe, in the North Riding. Here he continued diligently performing his duty of a parish priest, and augmenting his knowledge of natural history, until 1793, when he was appointed chaplain to the Master of the Rolls, and rector of Scrayingham. By the death of his elder brother, the rev. Henry Zouch, in 1795, he succeeded to an estate at Sandal on which he resided to his death. In 1805 Mr. Pitt presented him with a prebend in the church of Durham, and in the same year he took the degree of D. D. He was offered the bishopric of Carlisle in 1808, but declined it on account of advanced age. He died in 1806. His works are *The Crucifixion*, a Seaton Prize Poem; *An Enquiry into the prophetic character of the Romans*, as described in Daniel; *The good Schoolmaster*, as exemplified in the Character of the Rev. John Clark; *Memoirs of Sir Philip Sidney*, 4to.; *Memoirs of John Sudbury*, Dean of Durham; an edition of Isaac Walton's *Love and truth*; another of the lives of Donne, Wotton, Hooker, and Herbert, by the same author, with notes, and his life; and a *Memoir of Sir George Wheeler*; printed after the author's death.

**ZOUNDS**, a contraction of his wounds! A profane oath now happily become obsolete, but frequent in the works of dramatic writers in the reign of Charles II.

**ZOUST** (Gerard), a German painter, who painted men better than ladies. He came over to London, where he had Riley for his pupil. He died in 1681.

**ZOUTMAN** (John Arnold), a brave Dutch seaman, who was lieutenant-admiral of Holland and West Friesland, and commanded the Dutch fleet in the action with the British fleet under Sir Hyde Parker, on the Dogger Bank, August 5th, 1781. He died at the Hague on the 9th of May, 1793.

**ZUCCHERO** (Thaddæus), an eminent painter, born at Urbino in 1529. He studied anatomy along with Raphael's works, whereby he came to excel in painting human figures. He died in 1569.

**ZUCCHERO** (Frederick), brother to Thaddæus, also became an eminent painter, but was obliged to leave Rome, for having painted several officers of the papal court with ass's ears. He then went to Spain, France, and England, and was employed by people of the first rank. The pope recalled him, erected an academy for him at Rome, and gave him the title of prince. He died in 1606.

**ZUCHE**. See **ZOUCH**.

**ZUDAKARA**, or **ZUDAKU**. See **LESGUIS**.

**ZUECCA**. See **GIUDUCCA**.

**ZUEELA**. See **ZAWILA**.

**ZUG**, the smallest of the Swiss cantons, is situated in the interior and surrounded by the cantons of Zurich, Schweitz, Lucerne, and Aargau. Its area is only 120 square miles; its population 15,000. Except a small plain, to the north of the town of Zug, this canton is covered with mountains and hills, of which the highest, however, is not more than 5000 feet above the level of the sea, and the others much lower. Its manufactures are trifling; but its corn, its vines, and other fruits, are by no means inconsiderable. Its lakes are those of Zug and Egeri.

**Zug**, the capital of the preceding canton, stands on the lake of Zug, twenty-nine miles south of Zurich. Population 1600.

**ZUINGLIUS** (Ulricus), an able and zealous reformer, who laid the foundation of a separation from Rome in Switzerland, at the same time that Luther did the like in Saxony, was born at Wildehausen in 1487. While he officiated as preacher at Zurich, a Franciscan sent by Leo X. came to publish indulgencies there; against which Zuinglius, after the example of Luther, declaimed powerfully. In the course of this opposition he started a new doctrine, which he called Evangelical Truth; and, from the beginning of 1519 to 1523 he preached not only against indulgencies, but against other articles of the Romish church. But, though Zuinglius made no less progress than Luther, he yet conducted himself with more moderation and prudence; and, wishing to have the concurrence of the civil powers, procured two assemblies to be called at Zurich; by the first he was authorised to proceed as he had begun; and by the second the outward worship and ceremonies of the church of Rome were abolished. During these transactions Zuinglius published several books in defence of his doctrines; but, treating of the eucharist, and prescribing a form of celebrating the Lord's Supper different from Luther, he was involved in violent disputes with the rest of his reforming brethren. Interpreting the words *hoc est corpus meum* by *hoc significat corpus meum*, he maintained that the body and blood of Christ are not really present in the eucharist; and that the bread and wine are nothing more than external signs or symbols, designed to excite in the minds of Christians the remembrance of the sufferings of the divine Saviour, and of the benefits which arise from them. This opinion, which was afterwards so plausibly supported by the celebrated Hoadley (see **SUPPER OF THE LORD**), gave offence to Calvin as well as to Luther; but the doctrines of Zuinglius, which were most obnoxious to that eminent reformer, were those which deny election and reprobation, and make the church a society wholly dependent on the state. Respecting the divine decrees, the opinion of Zuinglius and his followers differed very little from that of the Pelagians; for he maintained that heaven is open to all who live according to the dictates of right reason; and he seems to have denied the doctrine of original sin. Instead of declaring with Calvin that the church is a separate independent body, vested with the right of legislation for itself, Zuinglius ascribed to the civil magistrate an absolute and unbounded power in religious matters, allowing at the same time a certain subordination among the ministers of the church. This was abundantly



agreeable to the magistrates of Zurich; but, the rest of the Swiss cantons disallowing of their proceedings, seated on the Sanderou, which separates it from Ispahan.

**ZULPHA**, a town of Persia, built by the Armenians, seated on the Sanderou, which separates it from Ispahan.

**ZUMBO** (Gaston John), an eminent sculptor, born at Syracuse in 1656. He lived at Florence, and was employed by the grand duke of Tuscany. He died at Paris in 1701. According to some, he was a private gentleman; others say he was a secular priest; but both statements may be correct, referring to different periods of his life. He displayed great skill in the art of modelling; and a profound study of anatomy and the antique enabled him to execute works at Bologna, Florence, Geneva, and Marseilles, which have excited much admiration. Millin observes, that his very accurate representation of the degrees of putrefaction in the human body particularly attracted the notice of connoisseurs. These preparations were for a long time in the gallery of Florence, till the grand duke Leopold gave them to his physician Lagusi.

**ZUMSTEEG** (John Rodolph), an eminent musical composer, and violin performer, belonged to the chapel of the duke of Wurtemberg. He was born about 1760, at Gansingen, in the country of Lauffenbourg. His education commenced at the academy of Wurtemberg, under the chapel-master Poli, who, conceiving a friendship for him, took a particular interest in his improvement: he afterwards studied the works of Mattheson, Marpurg, and D'Alembert. He died at Stutgard, January 27th, 1802, having composed both for the violoncello and for the voice. His works consist of operas, songs, and a mass; besides pieces for instruments.

**ZUNDERERZ**. Tinder ore. An ore of silver.

**ZUNGAR**, an ancient town of Tunis, wherein are the ruins of a temple, and of an aqueduct for carrying water to Carthage, forty-eight miles south-west of Tunis.

**ZUPALIUM**, in medicine and pharmacy, a jalap.

**ZURICH**, a canton in the north of Switzerland, having that of Thurgau to the east, that of Aargau to the west. Its area, 950 square miles, is somewhat smaller than the average size of an English county; but its population, 183,000, is such as to rank it among the best peopled tracts of the continent. The hills, which do not rise above 3200 feet, are separated by beautiful valleys and lakes. Rich pastures and extensive orchards meet the eye of the traveller in every direction. The cattle are in general of a good breed. Wine also is cultivated; the quality, in certain tracts of favorable exposure, is good; but in general it is thin and sharp. The manufactures are mostly carried on by weavers in their own houses, to which are attached patches of land. The fabrics are chiefly cotton and light silk stuffs, linen, woollen, and leather. Corn is imported, the produce being inadequate to the consumption. The revenue of the canton is about £50,000; its contingent to the military force of Switzerland 3858. The inhabitants are almost all Calvinists.

**ZURICH**, the capital of the above canton, stands on the river Limmat, at the northern extremity of

the lake of Zurich, in a narrow valley. It is fortified with a wall and ditch, and is tolerably neat and clean, though most of the houses are old fashioned. The population, 11,000, are almost all Calvinists.

**ZURICH**, a lake of Switzerland, extending in the form of a crescent, chiefly through the canton of Zurich, but partly also between those of Schweitz and St. Gall. It is divided into the Upper and Lower by the strait at Rapperschwyl, which, the breadth being little more than a quarter of a mile, is crossed by a long wooden bridge. In other places the breadth varies to the extent of nearly five miles. The length is about thirty. This lake, without rivalling those of Geneva or Lucerne in awful sublimity of scenery, is still one of the finest in Europe, being surrounded by a populous and well cultivated country, and the prospects on its banks being richly varied. It abounds in fish.

**ZURLAUBEN** (B. Fid. Antoine Jean Dominique, baron de la Tour Chatillon), an historian, who held the rank of lieutenant-general in the service of France. He was a native of Zug in Switzerland, and died in 1799. His works are *Histoire Militaire des Suisses au service de la France*, 8 vols. 12mo; *Mémoires et Lettres de Henri Duc de Rohan*; *Tableaux topographiques pittoresques, physiques, historiques, moraux, politiques et littéraires de la Suisse*, 4 vols. folio; besides other publications.

**ZURLITE**, a mineral occurring in rectangular prisms, and in botroidal masses, of an asparagus green color. It yields to the knife, but emits sparks with steel. Specific gravity 3.274. Melts with borax into a black glass. It is found on mount Vesuvius with calcareous spar.

**ZUTH**. See DELUGE.

**ZUYDER-ZEE**, an inland sea or gulf of the German Ocean, surrounded chiefly by the Dutch provinces of Holland, Overysse, and Friesland. Its length from north to south is about eighty miles; its breadth varies from fifteen to thirty. It is said to have been in remote ages a lake, until the barrier on the north-west, separating it from the German Ocean, was swallowed up by some tremendous inundation. This opinion is confirmed by the position of the islands Texel, Vlieland, &c., which, with intervening shoals and sand banks, still form a kind of defence against the ocean. The trade of Amsterdam is carried on along the Zuyder-Zee, the entrance to which is at the Texel. The communication with the lake of Haerlem is by the south, the inlet on the banks of which Amsterdam is built.

**ZUZ**, Heb. זוז, an ancient Jewish coin, of which four made a shekel, worth 7½d sterling.

**ZUZIMS**. See ZANZUMMIMS.

**ZWARTLAND**, a considerable division of the Cape Territory, about sixty miles north of Cape Town, considered the granary of the colony. Besides common grains there are some swampy grounds that produce abundance of rice.

**ZWELLENDAN**, a district of the Cape of Good Hope, extending eastward from Cape Town, and bounded north by the Zwarte Berg, or Black Mountains. The length is about 380 miles, and its breadth sixty. The produce is corn, wine, and cattle, but few sheep. The drosdy, or village, is 140 miles from Cape Town, at the foot of a chain of mountains.

**ZWINGER** (Theodore), M. D., a learned Swiss

physician, born at Basil in 1534. He compiled *The Theatre of Human Life*, 8 vols. folio, Lyons, 1556. He died in 1588, aged fifty-four. His son,

ZWINGER (N.) was also a man of abilities, and published several learned works.

ZWOLL, or ZWOLLE, a town of the Netherlands, the chief place of the province of Overysse, is on the river Aa, here called the Zwartewater. It is intersected by two canals, and fortified by a wall and ditch, eleven large bastions, &c. The interior is well built; it contains eight churches and a workhouse; but the only remarkable structure is the church of St. Michael. Outside of the walls are three suburbs; and there are very fine walks on the neighbouring eminence. It has a pretty active trade, enjoying the advantage of a direct water carriage to Amsterdam, Enkhuysen, Haarlem, and some other towns. The principal manufacture is sugar refining. It was formerly one of the Hanse towns; and the celebrated Thomas a Kempis was a monk in an Augustinian priory in this town. Population 12,800. Forty-eight miles east by north of Amsterdam.

ZYGIA, from *ζευγνυμι*, to join. A surname of Juno, because she presided over marriage.—Pindar *Pollux*, 3 c. 3.

ZYGII, a savage nation who dwelt on the north of Colchis, in Zygopolis.—Strabo 11.

ZYGOMA, in anatomy, a bone of the head, or rather a union or assemblage of two processes or eminences of bones; the one from the *os temporis*, the other from the *os malæ*; these processes are hence termed the zygomatic processes, and the

suture that joins them together is denominated the zygomatic suture.

ZYGOMALIS, or ZYGOMATICUS, in anatomy, a muscle of the head, arising from the *os zygoma*, whence its name, and terminating at the angle of the lips. See ANATOMY.

ZYGOPHYLLUM, bean caper, in botany, a genus of plants of the class decandria and order monogynia, and in the natural system arranged under the fourteenth order, *gruinales*. There are eleven species, partly shrubby and partly herbaceous plants, all natives of warm climates, though some of them are hardy enough to endure the open air in this country.

ZYGOSTATES, Greek *ζυγοςτης*. A clerk of a market who had the oversight of weights.

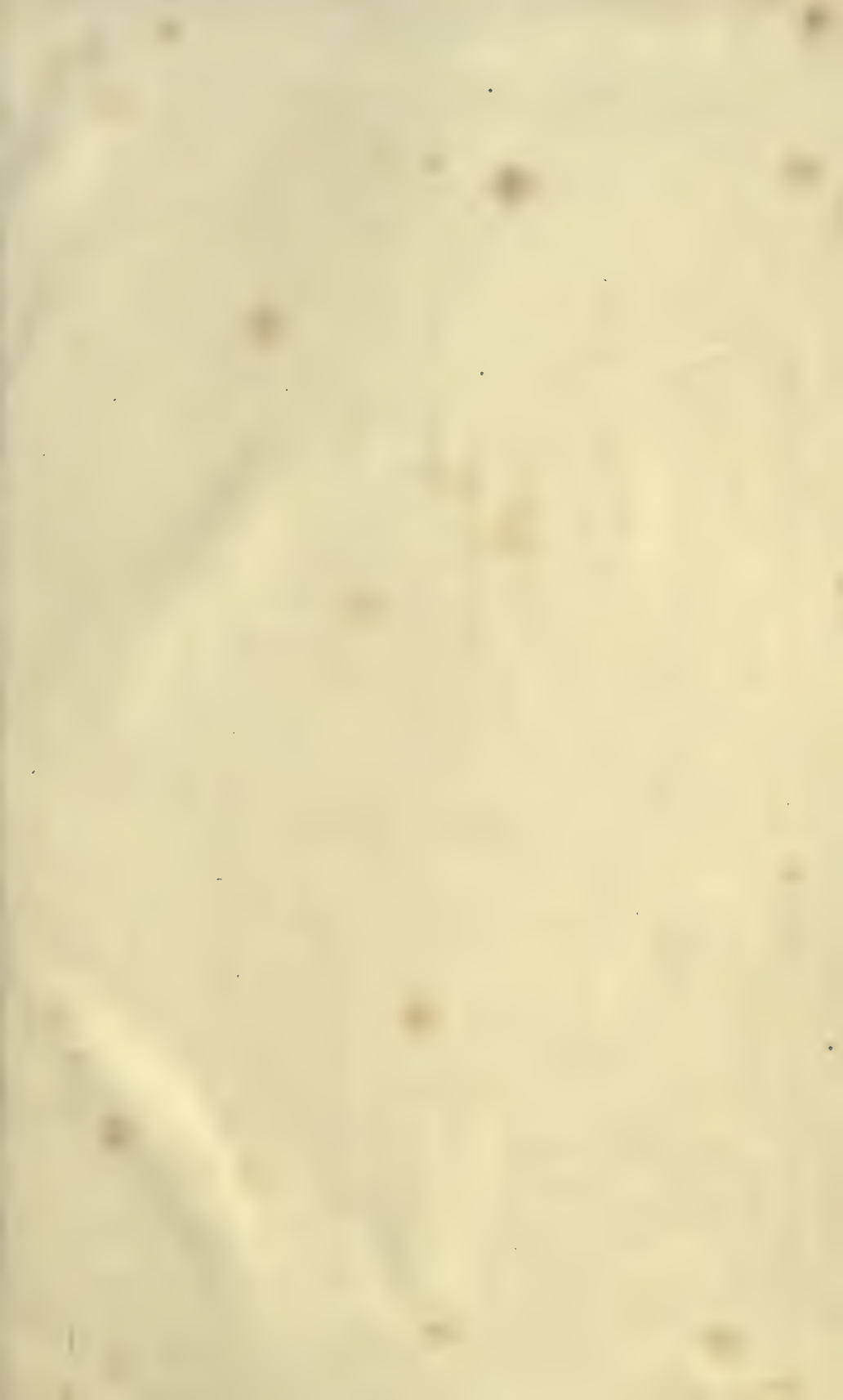
ZYMOSIMETER from *ζυμωσις*, fermentation, and *μετρον*, an instrument proposed by Swammerdam, in his book *de Respiratione*, wherewith to measure the degree of fermentation occasioned by the mixture of different matters, and the degree of heat which those matters acquire in fermenting, as also the heat or temperament of the blood of animals.

ZYPÆUS, or ZYP VANDER (Francis), a learned writer, born at Malines, in 1580. The bishop of Antwerp appointed him canon and archdeacon of his church. He wrote, 1. *Analytica enarratio juris Pontificii novii*. 2. *Consultationes Canonice*. 3. *Nottie Juris Belgici*. 4. *De Jurisdictione Ecclesiastica et civili*. He died in 1655, aged seventy-five.

ZZ were anciently used as a contraction or character for *myrrh*; but now they are only used to express *zinziber*, *inger*.

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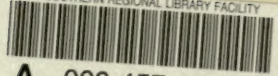


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